					DEPARTMENT		-			AMENI	FC DED REPOR	RM 3		
		AF	PPLICATION FO	R PERMI	IT TO DRILL				1. WELL NAME and N		921-3604	cs		
2. TYPE O	F WORK	DRILL NEW WELL	® DEENTED	DO A MELL	O DEEDEN	WELL (\		3. FIELD OR WILDCA	T				
4. TYPE O	F WELL	DRILL NEW WELL	REENIER	P&A WELL	U DEEPEN	WELL	NATURAL BUTTES 5. UNIT OF COMMUNITIZATION AGREEMENT NAME							
6. NAME C	F OPERATOR	Ga	as Well Co	albed Meth	nane Well: NO				7. OPERATOR PHONE	<u> </u>				
	SS OF OPERATO		KERR-MCGEE OIL	& GAS ONS	SHORE, L.P.				9. OPERATOR E-MAI	720 92	9-6515			
			P.O. Box 173779				julie.j	acobson@	anadarko	.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 22265 11. MINERAL OWNERSHII FEDERAL INDIAN INDIAN							STATE 📵) FEE	12. SURFACE OWNER FEDERAL IN	I SHIP DIAN 🛑	STATE	F	EE 🔵	
13. NAME	13. NAME OF SURFACE OWNER (if box 12 = 'fee') 14. SURFACE OWNER PHONE (if box 12 = 'fee')													
15. ADDR	15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 16. SURFACE OWNER E-MAIL (if box 12 = 'fee')													
	N ALLOTTEE OF	R TRIBE NAME			TEND TO COMM		RODUCTION	FROM	19. SLANT					
(if box 12	= 'INDIAN')			YES	effect		ing Applicatio	n) NO	VERTICAL DI	RECTION	AL 📵 H	HORIZON	TAL 🔵	
20. LOCA	TION OF WELL			FOOTAGE	:S	QTR	R-QTR	SECTION	TOWNSHIP	R/	ANGE	М	ERIDIAN	
LOCATIO	N AT SURFACE	:	1198	98 FSL 2163 FEL SWSE 36				9.0 S	2.	1.0 E		S		
Top of U	ppermost Prod	ucing Zone	491	FSL 1809	9 FEL	SV	NSE	36	9.0 S	2	21.0 E		S	
At Total	Depth		491	FSL 1809	9 FEL	SWSE 36				21.0 E S		S		
21. COUN	TY	UINTAH		22. DIS	STANCE TO NEA	REST LEA 491		et)	23. NUMBER OF ACR	ES IN DRI 63		IT		
					STANCE TO NEA ed For Drilling		leted)	POOL	26. PROPOSED DEPT		TVD: 104	-38		
27. ELEV <i>I</i>	TION - GROUN			28. BO	OND NUMBER				29. SOURCE OF DRIL WATER RIGHTS APPR	ROVAL NU	MBER IF A	PPLICAB	LE	
		5011			Hole, Casing	22013		mation		43-8	3490			
String	Hole Size	Casing Size	Length	Weight			Max Mu		Cement		Sacks	Yield	Weight	
SURF	12.25	8.625	0 - 2530	28.0	J-55 LT	T&C	0.2	2	Type V		180	1.15	15.8	
	- 0			44.0	1105 110	1.700			Class G		270	1.15	15.8	
PROD	7.875	4.5	0 - 10558	11.6	HCP-110	LI&C	13.0	0 Pr	emium Lite High Stre 50/50 Poz	ength	320 1540	1.31	12.0	
							<u> </u>		30/30 F02		1340	1.31	14.3	
					A	TTACHN	MENTS							
	VER	IFY THE FOLLO	WING ARE ATT	ACHED I	N ACCORDAN	ICE WITI	H THE UTA	H OIL AND GA	S CONSERVATION O	SENERA	L RULES			
w w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR EN	NGINEER		∠ COMP	LETE DRILLING	PLAN					
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREEN	ENT (IF FE	E SURFACE)		FORM	5. IF OPERATOR	IS OTHER THAN THE L	EASE OW	NER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED) TOPOGRAPHICAL MAP														
NAME Danielle Piernot TITLE Regulatory Analyst								PHONE 72	0 929-6156					
SIGNATU	RE			DATE 12	2/20/2011			EMAIL dar	ielle.piernot@anadarko.	com				
	BER ASSIGNED 04752245(0000		APPROV	/AL			B	00 EJIL					
								Per	nit Manager					

Morgan State 921-360 Pad Drilling Program

Kerr-McGee Oil & Gas Onshore. L.P.

MORGAN STATE 921-36O4CS

Surface: 1198 FSL / 2163 FEL SWSE BHL: 491 FSL / 1809 FEL SWSE

Section 36 T9S R21E

Unitah County, Utah Mineral Lease: ML-22265

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 - Surface	
Green River	1,301'	
Birds Nest	1,587'	Water
Mahogany	2,077'	Water
Wasatch	4,526'	Gas
Mesaverde	7,127'	Gas
Sego	9,350'	Gas
Castlegate	9,414'	Gas
MN5	9,838'	Gas
TVD =	10,438'	
TD =	10,558'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

1 of 9

Morgan State 921-360 Pad Drilling Program 2 of 9

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. <u>Drilling Fluids Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. <u>Abnormal Conditions</u>:

7.a Blackhawk (Part of Mesaverde Formation) Target Formation

Maximum anticipated bottom hole pressure calculated at 10438' TVD, approximately equals 6,889 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,640 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9350' TVD, approximately equals 5,984 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,914 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

Morgan State 921-360 Pad **Drilling Program**

> This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Morgan State 921-360 Pad Drilling Program 4 of 9

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

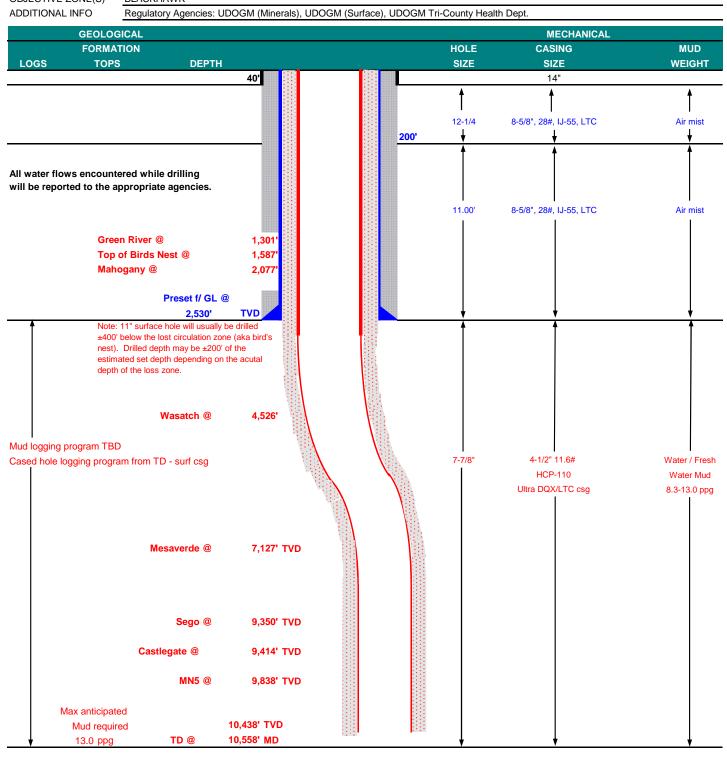
10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL &	GAS ONSHORE	LP		DATE	December 19, 2011			
WELL NAME MORGAN STATE 921-3604CS					TD	10,438'	TVD	10,558' MD	
FIELD Natural Butte	COUNTY	COUNTY Uintah STATE Utah		h	FINISHED ELEVATION		5,011'		
SURFACE LOCATION	SWSE	1198 FSL	2163 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.988732	Longitude	: -109.49	7696		NAD 27		
BTM HOLE LOCATION	SWSE	491 FSL	1809 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.98677	Longitude	: -109.49	6434		NAD 27		
OBJECTIVE ZONE(S)	BLACKHAWK	•			•	•			
ADDITIONAL INFO Regulatory Agencies: LIDOGM (Minerals), LIDOGM (Surface), LIDOGM Tri-County Health Dept									





KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

CASING PROGRAM	<u>1</u>	DESIGN FACTORS									
										LTC	DQX
	SIZE	INT	ERVA	7	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	(0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,530	28.00	IJ-55	LTC	2.13	1.59	5.61	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.23		3.74
	4-1/2"	5 000	to	10.558	11 60	HCP-110	LTC	1.19	1.23	5.40	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD		
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15		
Option 1		+ 0.25 pps flocele							
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15		
		+ 2% CaCl + 0.25 pps flocele							
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized								
Option 2 LEAD	2,030'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82		
		+ 0.25 pps Flocele + 3% salt BWOW							
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15		
		+ 0.25 pps flocele							
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15		
PRODUCTION LEAD	4,018'	Premium Lite II +0.25 pps	320	35%	12.00		3.38		
		celloflake + 5 pps gilsonite + 10% gel							
		+ 0.5% extender							
TAIL	6,540'	50/50 Poz/G + 10% salt + 2% gel	1,540	35%	14.30		1.31		
		+ 0.1% R-3							

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe						
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.						

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will	l be taken	at 1,000'	minimum	intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

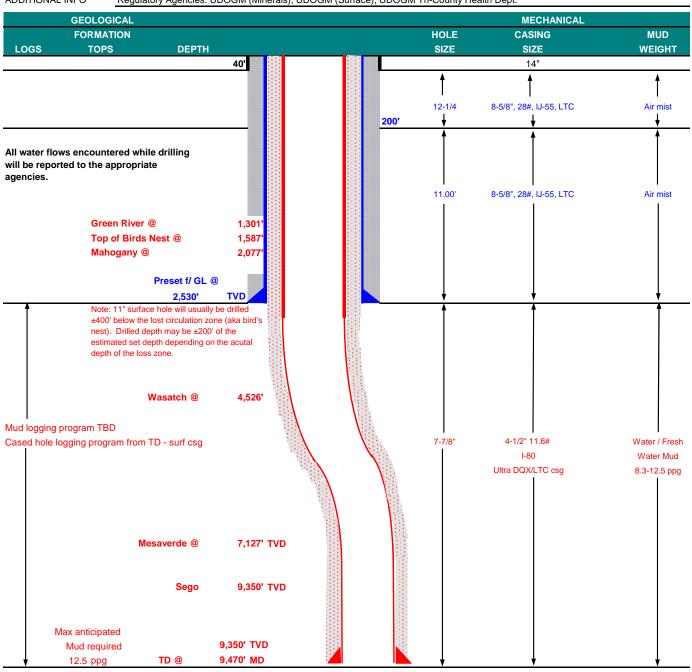
	Wost figs have FVT System for mud	monitoring. If no FVT is available, visual monitoring will be utilized.		
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel	•	
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	•	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL 8	GAS ONSHOR	E LP		DATE	December	December 19, 2011			
WELL NAME MO	RGAN STAT	E 921-36O40	CS	TD	9,350'	TVD	9,470' MD			
FIELD Natural Butte	COUNTY	COUNTY Uintah STATE Utah		h FINISHED ELEVATI		SHED ELEVATION_	5,011'			
SURFACE LOCATION	SWSE	1198 FSL	2163 FEL	Sec 36	T 9S	R 21E				
	Latitude:	39.988732	Longitude:	-109.49	7696		NAD 27			
BTM HOLE LOCATION	SWSE	491 FSL	1809 FEL	Sec 36	T 9S	R 21E				
	Latitude:	39.98677	Longitude:	-109.49	6434		NAD 27			
OBJECTIVE ZONE(S)	Wasatch/Mesaverde									
ADDITIONAL INFO Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.										





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KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM	<u>vi</u>	DESIGN FACTORS									
				LTC	DQX						
	SIZE	INT	INTERVAL W			GR.	CPLG.	BURST	COLLAPSE TENSIO		NSION
CONDUCTOR	14"	()-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,530	28.00	IJ-55	LTC	2.13	1.59	5.61	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.04		3.00
								7,780	6,350	223,000	
	4-1/2"	5,000	to	9,470'	11.60	I-80	LTC	1.11	1.04	5.32	

Surface Casing:

(Burst Assumptions: TD = 125 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 0.64 psi/ft = bottomhole gradient psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD				
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15				
Option 1		+ 0.25 pps flocele								
TOP OUT CMT (6 jobs	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15				
		+ 2% CaCl + 0.25 pps flocele								
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized								
Option 2 LEAD	2,030'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00	3.82				
		+ 0.25 pps Flocele + 3% salt BWOW								
TAII	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15				
		+ 0.25 pps flocele								
TOP OUT CM	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15				
PRODUCTION LEAD	4,020'	Premium Lite II +0.25 pps	320	35%	12.00	3.38				
		celloflake + 5 pps gilsonite + 10% gel								
		+ 0.5% extender								
TAII	5,450'	50/50 Poz/G + 10% salt + 2% gel	1,290	35%	14.30	1.31				
		+ 0.1% R-3								

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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ADDITIONAL INFORMATION

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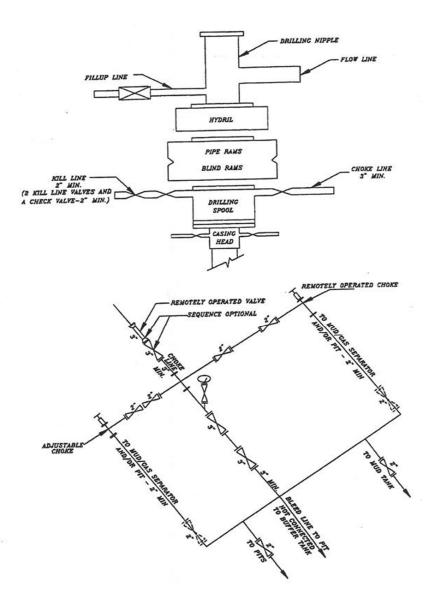
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum interval	s.
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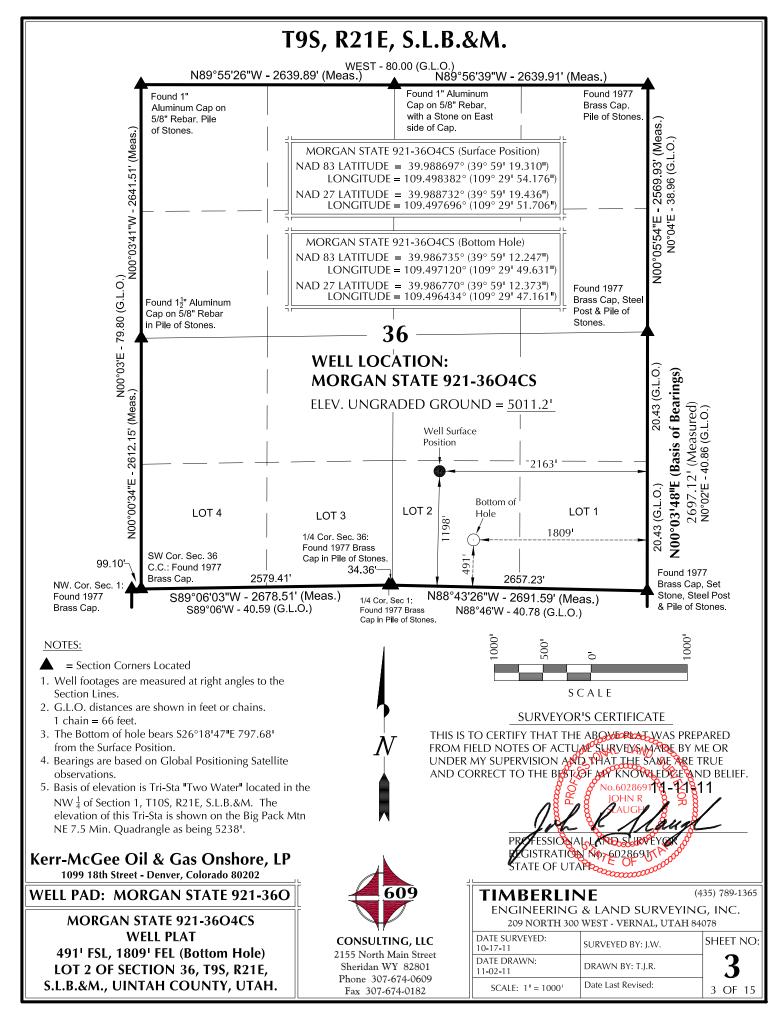
Most rigs have PVT System	for mud monitoring. If no PVT is available, visual monitoring will be utilized.		
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel	-	
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A
MORGAN STATE 921-3604CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



		•	URFACE POS	ITION						Re	OTTOM HOLE		
WELL NAME	NAD	83		NAD27				NAI			NAI		
MORCANISTAT	LATITUDE 39°59'19.493"	LONGITUD			GITUDE	FOOTAC		ITUDE	LONG		LATITUDE	LONGITUDE	
MORGAN STATE 921-36O1BS		109°29'54.08 109.498356°	1" 39°59'19.6 39.988783		'51.611" 7670°	1217' FS 2156' FE	_	9'19.451" 88736°	109°29' 109.497		39°59'19.577" 39.988771°	109°29'47.115" 109.496421°	1220' FSL 1806' FEL
MORGAN STATE	39°59'19.401"	109°29'54.12		527" 109°29	'51.658"	1207' FS	L 39°59	9'16.273"	109°29'	49.845"	39°59'16.399"	109°29'47.375"	898' FSL
921-36O1CS MORGAN STATE		<u>109.498369°</u> 109°29'54.17	39.988758 6" 39°59'19.4		7683° '51.706"	2160' FE 1198' FS		37854° 9'12.247"	109.497 109°29'		39.987889° 39°59'12.373"	109.496493° 109°29'47.161"	1826' FEL 491' FSL
921-36O4CS	39.988697°	109.498382°	39.988732	?° 109.49	7696°	21631 FE	L 39.98	86735°	109.497		39.986770°	109.496434°	1809' FEL
WELL NIAME			ORDINATES - VELL NAME	From Surface				NOR	ти	EACT			
WELL NAME MORGAN STATE	-4.4'		ORGAN STATE	-316.8 ¹	333.	110	ELL NAME RGAN STAT	_		EAST			
921-36O1BS	-4.4		1-36O1CS	-ن. نه.ماد-	333.		-36O4CS	-/15	J.U	353.6			
1099 18	Gee Oil &	S C A	Shore, Los 80202	 -	DF SECT WHICH DOSITIO TIONS 1	MOR MOR MORG,	T9S, R21 N FROM TELLITE N00°03'	48"E. 48"E. 526'\8000000000000000000000000000000000000	153 (865) A (8) (8) (8) (8) (8) (8) (8) (8) (8) (8)		72389° E - 350.05' om Hole)	33.15. / Hole)	35) 790 126
WELL PAI	O - MORGA	AN STAT	E 921-360	O	#	609	•	T	IMB	FRII	INF	(4	35) 789-1365
					1		7	11				SURVEYING	
	PAD INTE - MORGAN S											NAL, UTAH 84	,
	- MOKGAN : DRGAN STAT					ULTING,		DAT 10-1	E SURVEY	ED:	SURVEYED E	Y: J.W.	SHEET NO:
	ORGAN STAT					orth Main an WY 82		DAT	E DRAWN	1:	DRAWN BY:	TIR	1
	ED IN SECTI					an WY 82 307-674-0		11-0				·	4
	M., UINTAL			11	Fax 3				SCALE: 1"	col	Date Last Re	/ISPCI*	4 OF 15

S.L.B.&M., UINTAH COUNTY, UTAH

209 NORTH 300 WEST - VERNAL, UTAH 84078

5 OF 15

REVISED:

ENGINEERING & LAND SURVEYING, INC.

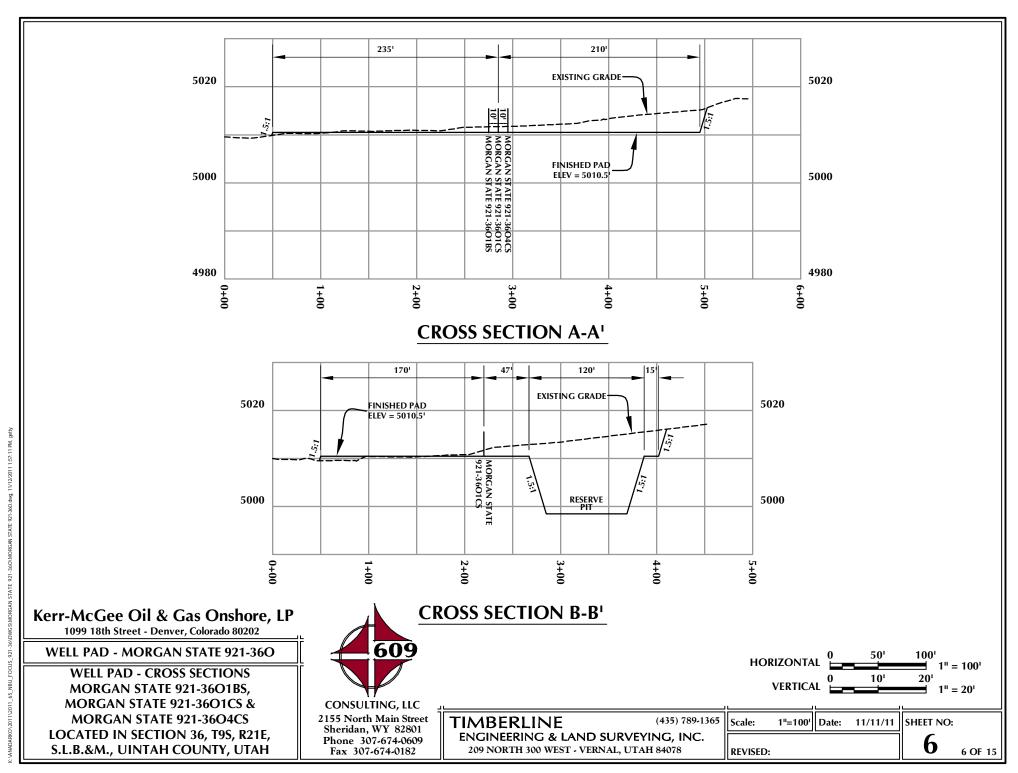
209 NORTH 300 WEST - VERNAL, UTAH 84078

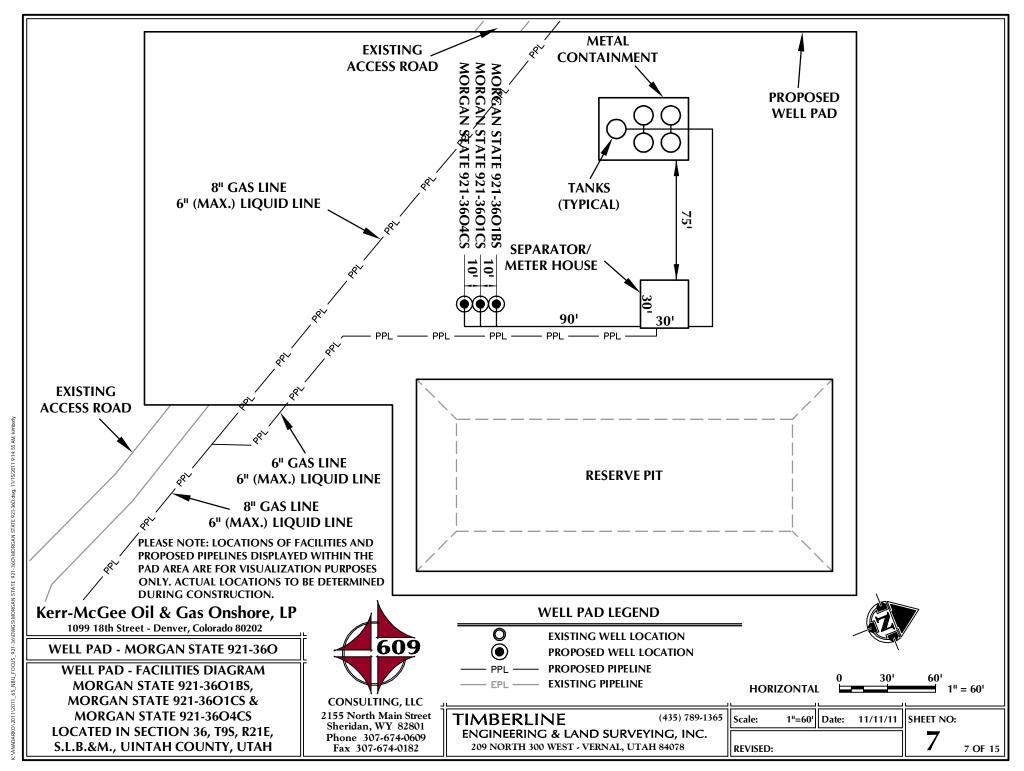
Phone 307-674-0609 Fax 307-674-0182

S.L.B.&M., UINTAH COUNTY, UTAH

REVISED:

 $5B_{5B OF 15}$





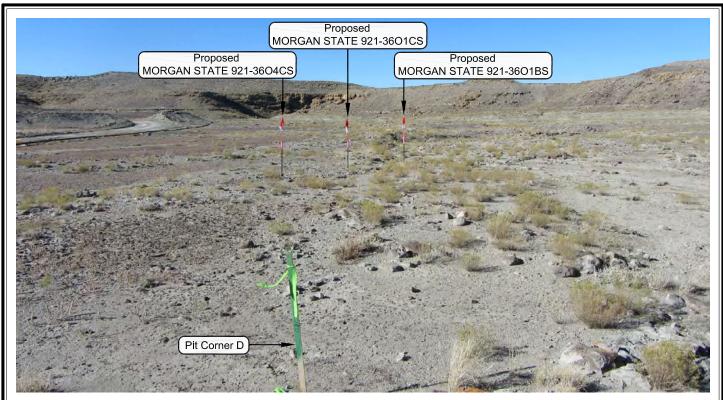


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

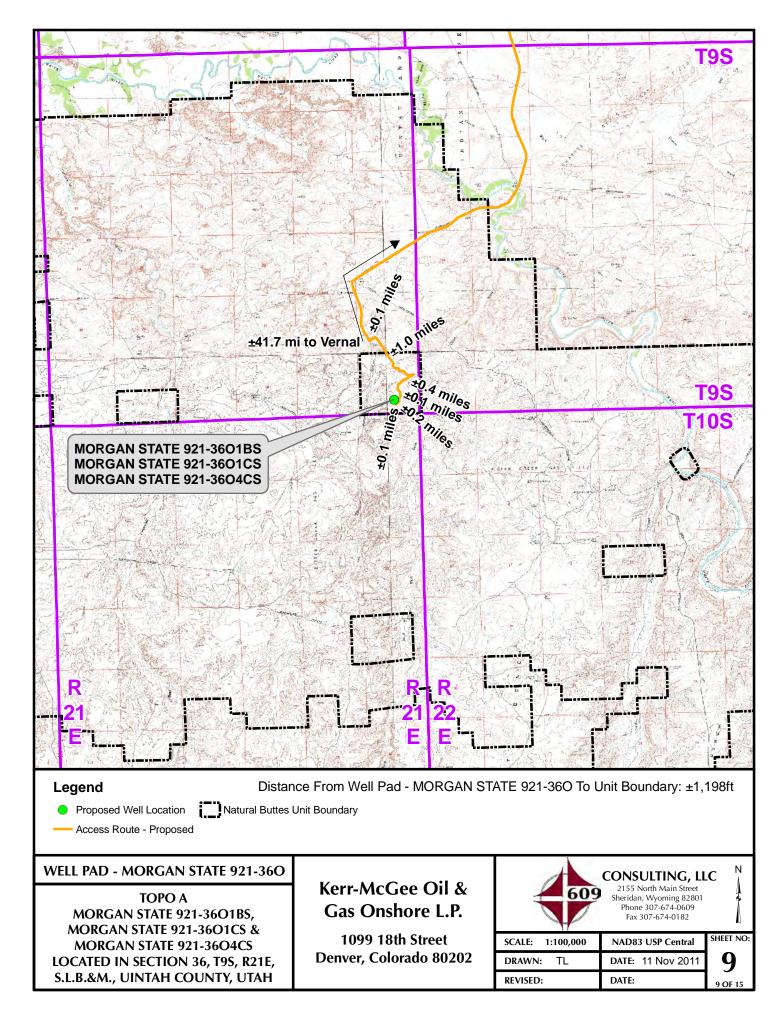
WELL PAD - MORGAN STATE 921-36O

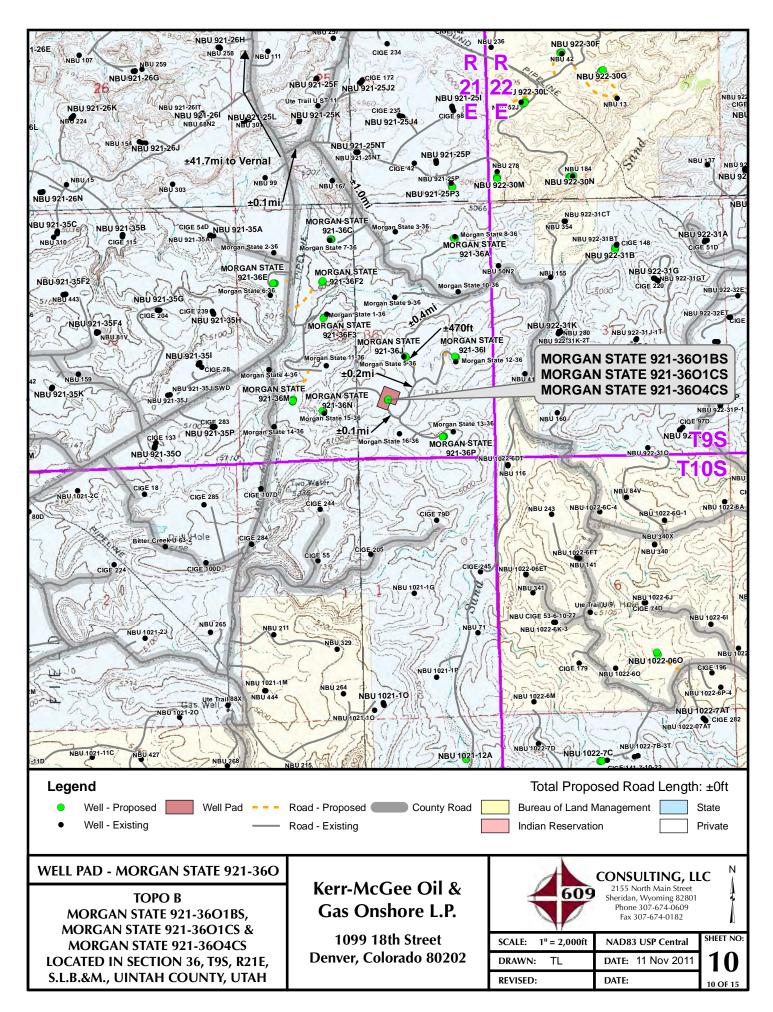
LOCATION PHOTOS
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

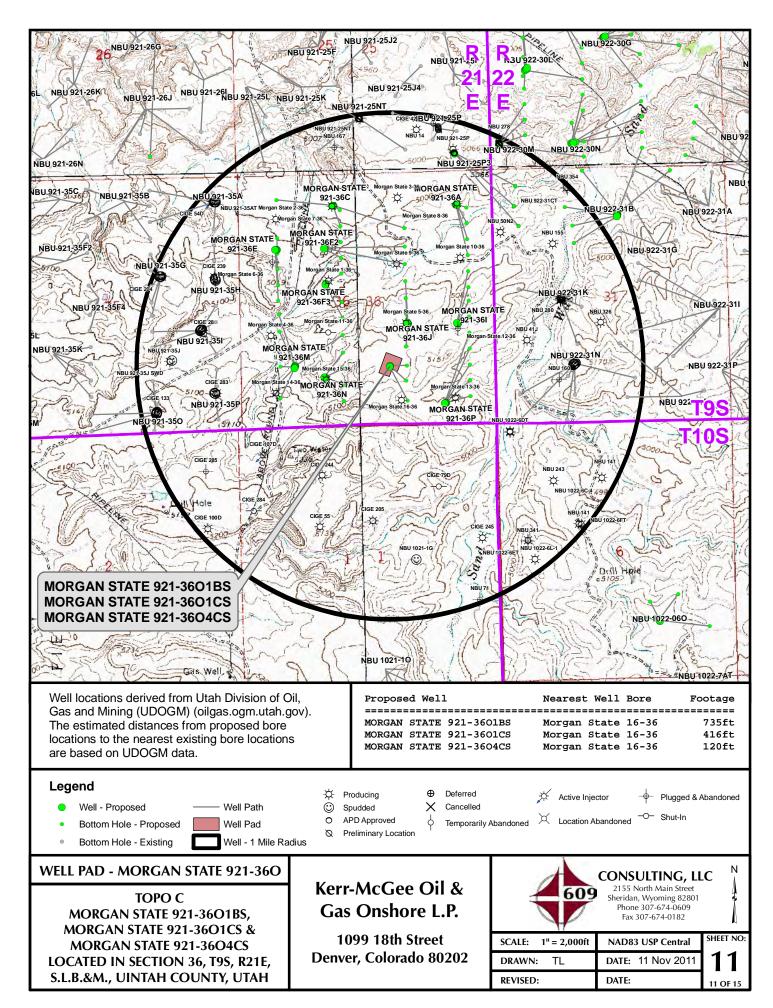


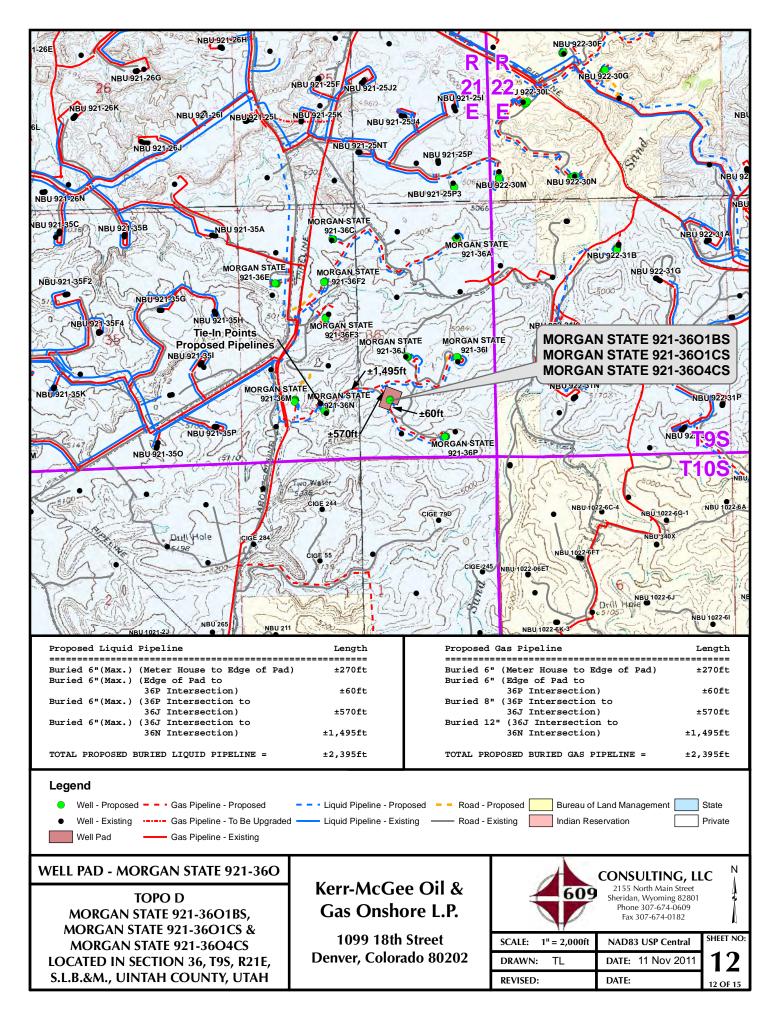
CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

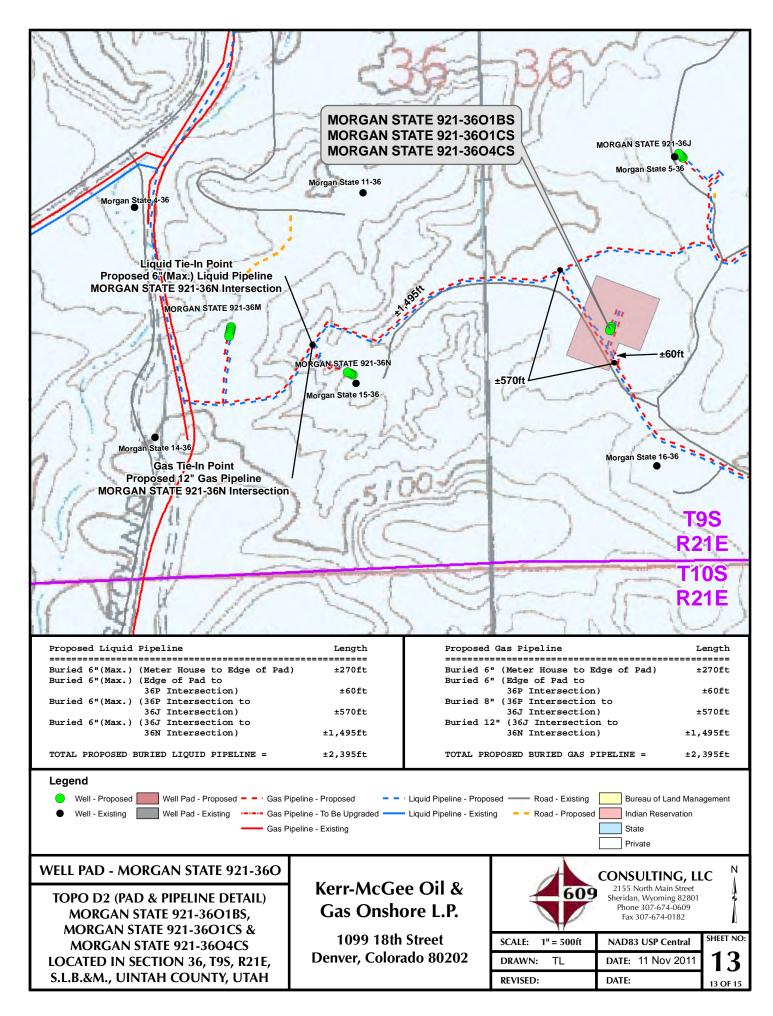
Ī	TIMBERLIN	JE (4	35) 789-1365
		& LAND SURVEYING West - vernal, utah 84	
	DATE PHOTOS TAKEN: 10-17-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
	DATE DRAWN: 11-02-11	DRAWN BY: T.J.R.	8
	Date Last Revised:		8 OF 15

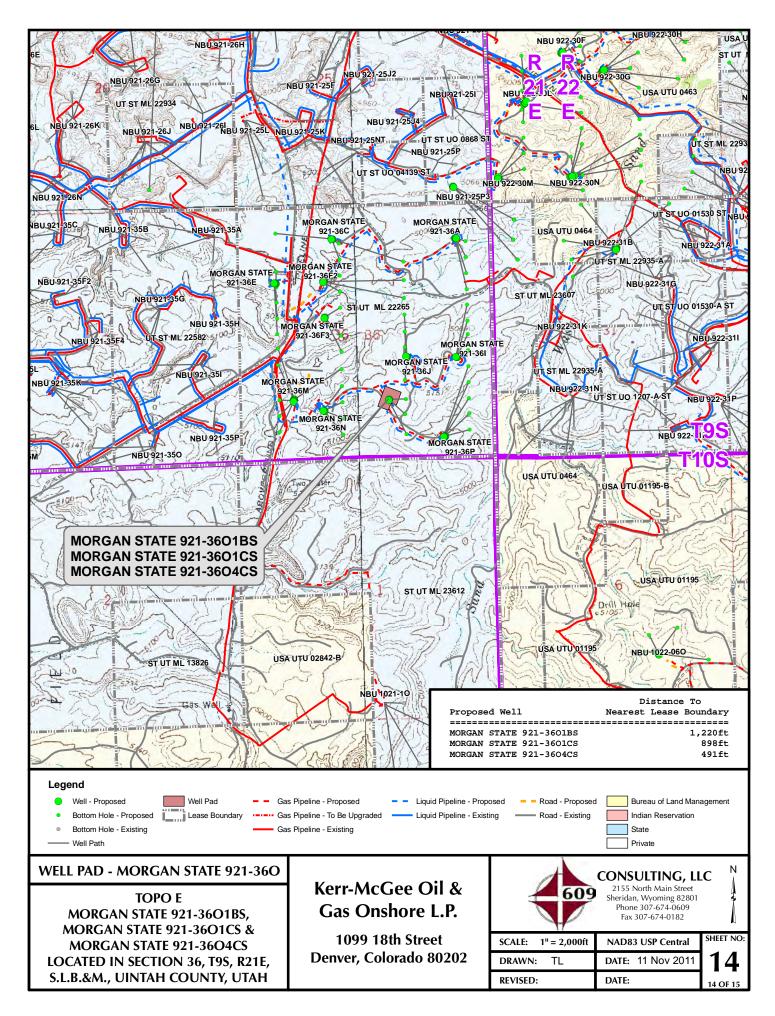












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MORGAN STATE 921-36O WELLS – MORGAN STATE 921-36O1BS, MORGAN STATE 921-36O1CS & MORGAN STATE 921-36O4CS Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road approximately 1.0 miles to a southeasterly direction along the second Class D County Road approximately 1.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction approximately 0.4 miles to the proposed MORGAN STATE 921-36J well pad. Proceed in a southeasterly direction approximately 470 feet through the proposed MORGAN STATE 921-36J well pad to a second service road to the south. Proceed in a southerly direction along the second service road approximately 0.2 miles to a third service road to the northwest. Exit right and proceed in a northwesterly direction approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.6 miles in a southerly direction.

SHEET 15 OF 15

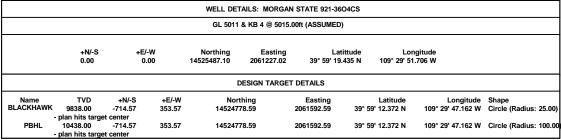
API Well Number: 43047 5202465 OUTAB - UTM (feet), NAD27, Zone 12N

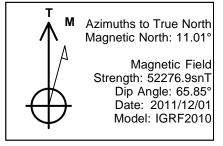
Site: MORGAN STATE 921-360 PAD Well: MORGAN STATE 921-36O4CS

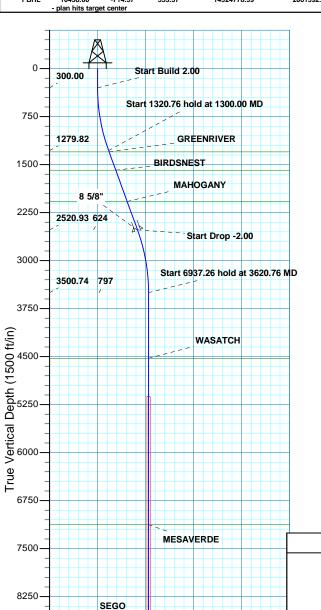
Wellbore: OH

Design: PLAN #1 PRELIMINARY









BLACKHAWK

TD at 10558.02

1500

Vertical Section at 153.67° (1500 ft/in)

2250

3000

750

9000

9750

10500

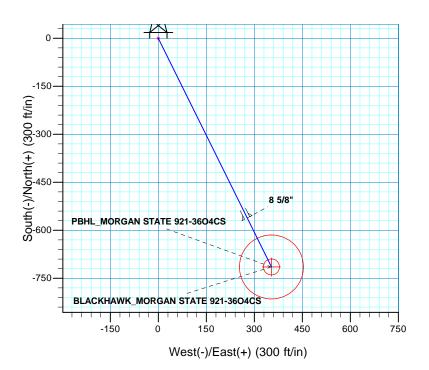
11250

CASTLEGATE

10438.00 797

Scientific Drilling

Rocky Mountain Operations



SECTION DETAILS +E/-W 0.00 Azi 0.00 TVD 0.00 Dleg 0.00 Target 0.00 0.00 0.00 0.00 0.00 172.77 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 20.00 153.67 1279.82 -154.85 2.00 -559.72 276.95 2620.76 20.00 153.67 2520.93 0.00 0.00 624.50 797.26 797.26 180.00 10558.02 0.00 0.0010438.00 -714.57 0.00 0.00 PBHL MORGAN STATE 921-36O4CS FORMATION TOP DETAILS PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N Formation GREENRIVER BIRDSNEST TVDPath 1301.00 MDPath Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS) 1626 90 1587.00 MAHOGANY Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION T9S R21E

System Datum: Mean Sea Level CASING DETAILS

2077.00 4526.00 2148.35 4646.02 WASATCH 7127.00 9350.00 7247.02 9470.02 MESAVERDE SEGO 9414.00 9534.02 CASTLEGATE 9838.00 9958.02 BLACKHAWK

MD 2627.22 Name 8 5/8" 2527.00 8.625

> Created By: RobertScott Date: 14:32, December 01 2011

Plan: PLAN #1 PRELIMINARY (MORGAN STATE 921-36O4CS/OH)

RECEIVED:



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36O PAD MORGAN STATE 921-36O4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

01 December, 2011





SDIPlanning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-360 PAD

Well: MORGAN STATE 921-36O4CS

Wellbore: OH

Project:

Site:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-3604CS GL 5011 & KB 4 @ 5015.00ft (ASSUMED) GL 5011 & KB 4 @ 5015.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

 Geo Datum:
 NAD 1927 (NADCON CONUS)

 Map Zone:
 Zone 12N (114 W to 108 W)

System Datum: Mean Sea Level

Site MORGAN STATE 921-360 PAD, SECTION T9S R21E

Northing: 14,525,505.80 usft Site Position: Latitude: 39° 59' 19.619 N From: Lat/Long Easting: 2,061,233.99 usft Longitude: 109° 29' 51.612 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97 13.200 in

Well MORGAN STATE 921-3604CS, 1198 FSL 2163 FEL

 Well Position
 +N/-S
 -18.57 ft
 Northing:
 14,525,487.10 usft
 Latitude:
 39° 59′ 19.435 N

 +E/-W
 -7.28 ft
 Easting:
 2,061,227.02 usft
 Longitude:
 109° 29′ 51.706 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 5,011.00 ft

Wellbore ОН Field Strength Magnetics **Model Name** Sample Date Declination Dip Angle (nT) (°) (°) IGRF2010 2011/12/01 11.01 65.85 52.277

PLAN #1 PRELIMINARY Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 153.67

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	153.67	1,279.82	-154.85	76.62	2.00	2.00	0.00	153.67	
2,620.76	20.00	153.67	2,520.93	-559.72	276.95	0.00	0.00	0.00	0.00	
3,620.76	0.00	0.00	3,500.74	-714.57	353.57	2.00	-2.00	0.00	180.00	
10,558.02	0.00	0.00	10,438.00	-714.57	353.57	0.00	0.00	0.00	0.00 F	PBHL_MORGAN STA



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION P
Project: UTAH - UTM (feet), NAD2

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36O PAD MORGAN STATE 921-36O4CS

Wellbore: OH

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-3604CS GL 5011 & KB 4 @ 5015.00ft (ASSUMED) GL 5011 & KB 4 @ 5015.00ft (ASSUMED)

True

sign:	PLAN #1 PRE	LIMINARY							
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2	.00								
400.00	2.00	153.67	399.98	-1.56	0.77	1.75	2.00	2.00	0.00
500.00	4.00	153.67	499.84	-6.25	3.09	6.98	2.00	2.00	0.00
600.00	6.00	153.67	599.45	-14.07	6.96	15.69	2.00	2.00	0.00
700.00	8.00	153.67	698.70	-24.99	12.36	27.88	2.00	2.00	0.00
800.00			797.47		19.30			2.00	
	10.00	153.67		-39.01		43.52	2.00		0.00
900.00	12.00	153.67	895.62	-56.11	27.76	62.60	2.00	2.00	0.00
1,000.00	14.00	153.67	993.06	-76.27	37.74	85.10	2.00	2.00	0.00
1,100.00	16.00	153.67	1,089.64	-99.47	49.22	110.98	2.00	2.00	0.00
1,200.00	18.00	153.67	1,185.27	-125.67	62.18	140.21	2.00	2.00	0.00
1,300.00	20.00	153.67	1,279.82	-154.85	76.62	172.77	2.00	2.00	0.00
Start 1320.76	6 hold at 1300.00	MD							
1,322.54	20.00	153.67	1,301.00	-161.76	80.04	180.48	0.00	0.00	0.00
GREENRIVE			,						
1,400.00	20.00	153.67	1,373.78	-185.50	91.79	206.97	0.00	0.00	0.00
1,500.00	20.00	153.67	1,467.75	-216.16	106.96	241.17	0.00	0.00	0.00
1,600.00	20.00	153.67	1,561.72	-246.81	122.12	275.37	0.00	0.00	0.00
1,626.90	20.00	153.67	1,587.00	-255.06	126.20	284.57	0.00	0.00	0.00
BIRDSNEST									
1,700.00	20.00	153.67	1,655.69	-277.47	137.29	309.58	0.00	0.00	0.00
1,800.00	20.00	153.67	1,749.66	-308.12	152.46	343.78	0.00	0.00	0.00
1,900.00	20.00	153.67	1,843.63	-306.12 -338.78	167.63	343.76 377.98	0.00	0.00	0.00
2,000.00	20.00	153.67	1,937.60	-369.43	182.80	412.18	0.00	0.00	0.00
2,100.00	20.00	153.67	2,031.57	-400.09	197.96	446.38	0.00	0.00	0.00
2,148.35	20.00	153.67	2,077.00	-414.91	205.30	462.92	0.00	0.00	0.00
MAHOGANY		100.07	2,011.00	414.01	200.00	402.02	0.00	0.00	0.00
WARDGANT									
2,200.00	20.00	153.67	2,125.54	-430.74	213.13	480.59	0.00	0.00	0.00
2,300.00	20.00	153.67	2,219.51	-461.40	228.30	514.79	0.00	0.00	0.00
2,400.00	20.00	153.67	2,313.48	-492.05	243.47	548.99	0.00	0.00	0.00
2,500.00	20.00	153.67	2,407.45	-522.70	258.64	583.19	0.00	0.00	0.00
2,600.00	20.00	153.67	2,501.42	-553.36	273.80	617.39	0.00	0.00	0.00
2,620.76	20.00	153.67	2.520.93	-559.72	276.95	624.50	0.00	0.00	0.00
Start Drop -2		100.07	2,020.00	000.12	270.00	0 <u>2</u> 4.00	0.00	0.00	0.00
2,627.22	19.87	153.67	2,527.00	-561.70	277.93	626.70	2.00	-2.00	0.00
	19.07	100.07	2,521.00	-301.70	211.93	020.70	2.00	-2.00	0.00
8 5/8"	40.40	450.07	0.505.75	F00.00	000 54	050.50	0.00	0.00	0.00
2,700.00	18.42	153.67	2,595.75	-583.09	288.51	650.56	2.00	-2.00	0.00
2,800.00	16.42	153.67	2,691.16	-609.91	301.79	680.49	2.00	-2.00	0.00
2,900.00	14.42	153.67	2,787.56	-633.74	313.57	707.07	2.00	-2.00	0.00
3,000.00	12.42	153.67	2,884.83	-654.53	323.86	730.27	2.00	-2.00	0.00
3,100.00	10.42	153.67	2,982.84	-672.27	332.64	750.06	2.00	-2.00	0.00
3,200.00	8.42	153.67	3,081.49	-686.93	339.89	766.42	2.00	-2.00	0.00
3,300.00	6.42	153.67	3,180.65	-698.50	345.62	779.32	2.00	-2.00	0.00
3,400.00	4.42	153.67	3,280.20	-706.95	349.80	788.76	2.00	-2.00	0.00
3,500.00	2.42	153.67	3,380.02	-712.29	352.44	794.72	2.00	-2.00	0.00
3,600.00	0.42	153.67	3,479.98	-712.29 -714.51	352.44 353.54	794.72 797.19	2.00	-2.00 -2.00	0.00
3,620.76	0.42	0.00	3,500.74	-714.51 -714.57	353.5 4 353.57	797.19	2.00	-2.00 -2.00	0.00
			0,000.74	1 17.31	555.57	131.20	2.00	-2.00	0.00
	6 hold at 3620.76		2 570 00	714 57	252 57	707.06	0.00	0.00	0.00
3,700.00 3,800.00	0.00 0.00	0.00	3,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
	() ()()	0.00	3,679.98	-714.57	353.57	797.26	0.00	0.00	0.00



SDIPlanning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36O PAD MORGAN STATE 921-36O4CS

Wellbore: OH

Project:

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-3604CS GL 5011 & KB 4 @ 5015.00ft (ASSUMED) GL 5011 & KB 4 @ 5015.00ft (ASSUMED)

True

Design:	PLAN #1 PRE	LIMINARY							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,779.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,000.00	0.00	0.00	3,879.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,100.00	0.00	0.00	3,979.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,200.00	0.00	0.00	4,079.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,300.00	0.00	0.00	4,179.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,400.00	0.00	0.00	4,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,500.00	0.00	0.00	4,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,600.00	0.00	0.00	4,479.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,646.02	0.00	0.00	4,526.00	-714.57	353.57	797.26	0.00	0.00	0.00
WASATCH									
4,700.00	0.00	0.00	4,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,800.00	0.00	0.00	4,679.98	-714.57	353.57	797.26	0.00	0.00	0.00
4,900.00	0.00	0.00	4,779.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,000.00	0.00	0.00	4,879.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,100.00	0.00	0.00	4,979.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,200.00	0.00	0.00	5,079.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,300.00	0.00	0.00	5,179.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,400.00	0.00	0.00	5,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,500.00	0.00	0.00	5,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,600.00	0.00	0.00	5,479.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,700.00	0.00	0.00	5,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,800.00	0.00	0.00	5,679.98	-714.57	353.57	797.26	0.00	0.00	0.00
5,900.00	0.00	0.00	5,779.98	-714.57 -714.57	353.57	797.26	0.00	0.00	0.00
6,000.00	0.00	0.00	5,879.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,100.00	0.00	0.00	5,979.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,200.00	0.00	0.00	6,079.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,300.00	0.00	0.00	6,179.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,400.00	0.00	0.00	6,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,500.00	0.00	0.00	6,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,600.00	0.00	0.00	6,479.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,700.00	0.00	0.00	6,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,800.00	0.00	0.00	6,679.98	-714.57	353.57	797.26	0.00	0.00	0.00
6,900.00	0.00	0.00	6,779.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,000.00	0.00	0.00	6,879.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,100.00	0.00	0.00	6,979.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,200.00	0.00	0.00	7,079.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,247.02	0.00	0.00	7,127.00	-714.57	353.57	797.26	0.00	0.00	0.00
MESAVERDE		3.00	.,121.00	7 14.07	000.01	101.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,179.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,400.00	0.00	0.00	7,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,500.00	0.00	0.00	7,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,600.00	0.00	0.00	7,479.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,700.00	0.00	0.00	7,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,800.00	0.00	0.00	7,679.98	-714.57	353.57	797.26	0.00	0.00	0.00
7,900.00	0.00	0.00	7,779.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,000.00	0.00	0.00	7,879.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,100.00	0.00	0.00	7,979.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,200.00	0.00	0.00	8,079.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,300.00	0.00	0.00	8,179.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,400.00	0.00	0.00	8,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,500.00	0.00	0.00	8,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,600.00	0.00	0.00	8,479.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,700.00	0.00	0.00	8,579.98	-714.57	353.57	797.26	0.00	0.00	0.00
8,800.00	0.00	0.00	8,679.98	-714.57 -714.57	353.57	797.26	0.00	0.00	0.00
0,000.00	0.00	0.00	0,070.00	, 17.01	550.07	101.20	0.00	0.00	0.00



SDI Planning Report



Database: Company: Project:

Site:

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-360 PAD

Well: MORGAN STATE 921-36O4CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-3604CS GL 5011 & KB 4 @ 5015.00ft (ASSUMED) GL 5011 & KB 4 @ 5015.00ft (ASSUMED)

True

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,900.00 9,000.00 9,100.00	0.00 0.00 0.00	0.00 0.00 0.00	8,779.98 8,879.98 8,979.98	-714.57 -714.57 -714.57	353.57 353.57 353.57	797.26 797.26 797.26	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,200.00 9,300.00 9,400.00 9,470.02	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,079.98 9,179.98 9,279.98 9,350.00	-714.57 -714.57 -714.57 -714.57	353.57 353.57 353.57 353.57	797.26 797.26 797.26 797.26	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
SEGO									
9,500.00	0.00	0.00	9,379.98	-714.57	353.57	797.26	0.00	0.00	0.00
9,534.02	0.00	0.00	9,414.00	-714.57	353.57	797.26	0.00	0.00	0.00
9,600.00 9,700.00 9,800.00 9,900.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,479.98 9,579.98 9,679.98 9,779.98	-714.57 -714.57 -714.57 -714.57	353.57 353.57 353.57 353.57	797.26 797.26 797.26 797.26	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
9,958.02	0.00	0.00	9,838.00	-714.57	353.57	797.26	0.00	0.00	0.00
	K - BLACKHAW	_			050.57	707.00	0.00		0.00
10,000.00 10,100.00 10,200.00 10,300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,879.98 9,979.98 10,079.98 10,179.98	-714.57 -714.57 -714.57 -714.57	353.57 353.57 353.57 353.57	797.26 797.26 797.26 797.26	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
10,400.00	0.00	0.00	10,279.98	-714.57	353.57	797.26	0.00	0.00	0.00
10,500.00 10,558.02	0.00 0.00	0.00 0.00	10,379.98 10,438.00	-714.57 -714.57	353.57 353.57	797.26 797.26	0.00 0.00	0.00 0.00	0.00 0.00
·	0.00 3AN STATE 921		10,436.00	-/ 14.5/	303.37	191.20	0.00	0.00	0.00
FBHL_WORK	JAN STATE 921	-300403							

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - plan hits target cent - Circle (radius 25.00)		0.00	9,838.00	-714.57	353.57	14,524,778.59	2,061,592.58	39° 59' 12.372 N	109° 29' 47.162 W
PBHL_MORGAN STATE - plan hits target cent - Circle (radius 100.00		0.00	10,438.00	-714.57	353.57	14,524,778.59	2,061,592.58	39° 59′ 12.372 N	109° 29' 47.162 W

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	e (in)	(in)
	2,627.22	2,527.00	8 5/8"	8.625	11.000



SDIPlanning Report



Database: Company: Project: Site: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-360 PAD

Well: MORGAN STATE 921-36O4CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-3604CS GL 5011 & KB 4 @ 5015.00ft (ASSUMED) GL 5011 & KB 4 @ 5015.00ft (ASSUMED)

True

nations								
	Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)	
	1,322.54	1,301.00	GREENRIVER					
	1,626.90	1,587.00	BIRDSNEST					
	2,148.35	2,077.00	MAHOGANY					
	4,646.02	4,526.00	WASATCH					
	7,247.02	7,127.00	MESAVERDE					
	9,470.02	9,350.00	SEGO					
	9,534.02	9,414.00	CASTLEGATE					
	9,958.02	9,838.00	BLACKHAWK					

Plan Annotations					
Me	asured	Vertical	Local Coor	dinates	
	epth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	Comment
	300.00	300.00	0.00	0.00	Start Build 2.00
	1,300.00	1,279.82	-154.85	76.62	Start 1320.76 hold at 1300.00 MD
	2,620.76	2,520.93	-559.72	276.95	Start Drop -2.00
	3,620.76	3,500.74	-714.57	353.57	Start 6937.26 hold at 3620.76 MD
1	0,558.02	10,438.00	-714.57	353.57	TD at 10558.02

 Surface:
 1217 FSL / 2156 FEL
 SWSE
 Lot 2

 BHL:
 1220 FSL / 1806 FEL
 SWSE
 Lot 2

MORGAN STATE 921-36O1CS

 Surface:
 1207 FSL / 2160 FEL
 SWSE
 Lot 2

 BHL:
 898 FSL / 1826 FEL
 SWSE
 Lot 2

MORGAN STATE 921-36O4CS

 Surface:
 1198 FSL / 2163 FEL
 SWSE
 Lot 2

 BHL:
 491 FSL / 1809 FEL
 SWSE
 Lot 2

Pad: MORGAN STATE 921-36O PAD

Section 36 T9S R21E Mineral Lease: ML-22265

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 2,395$ ' and the individual segments are broken up as follows:

- \pm 270' (0.05 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 60'$ (0.01 miles) –New 6" buried gas pipeline from the edge of the pad to the 921-36P intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±570' (0.1 miles) –New 8" buried gas pipeline from the 921-36P intersection to the 921-36J intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,495' (0.3 miles) –New 12" buried gas pipeline from the 921-36J intersection to the 921-36N intersection. Please refer to Topo D2 Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 2,395$ ' and the individual segments are broken up as follows:

- ±270' (0.05 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 60^{\circ}$ (0.01 miles) –New 6" buried liquid pipeline from the edge of the pad to the 921-36P intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±980' (0.2 miles) –New 6" buried liquid pipeline from the 921-36A intersection to the 921-36F2 intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±570' (0.1 miles) –New 6" buried liquid pipeline from the 921-36P intersection to the 921-36J intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,495' (0.3 miles) –New 6" buried liquid pipeline from the 921-36J intersection to the 921-36N intersection. Please refer to Topo D2 Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E Ouray #1 SWD in Sec. 1 T9S R21E

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Morgan State 921-36O1BS/ 921-36O1CS/ 921-36O4CS

Surface Use Plan of Operations 6 of 7

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

The site specific seed mix will be provided by SITLA.

L. Other Information:

None

RECEIVED: December 20, 2011

Morgan State 921-3601BS/ 921-3601CS/ 921-3604CS

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

December 19, 2011
Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

December 14, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 Morgan State 921-36O4CS

T9S-R21E

Section 36: SWSE (Surface), SWSE (Bottom Hole)

Surface: 1198' FSL, 2163' FEL Bottom Hole: 491' FSL, 1809' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

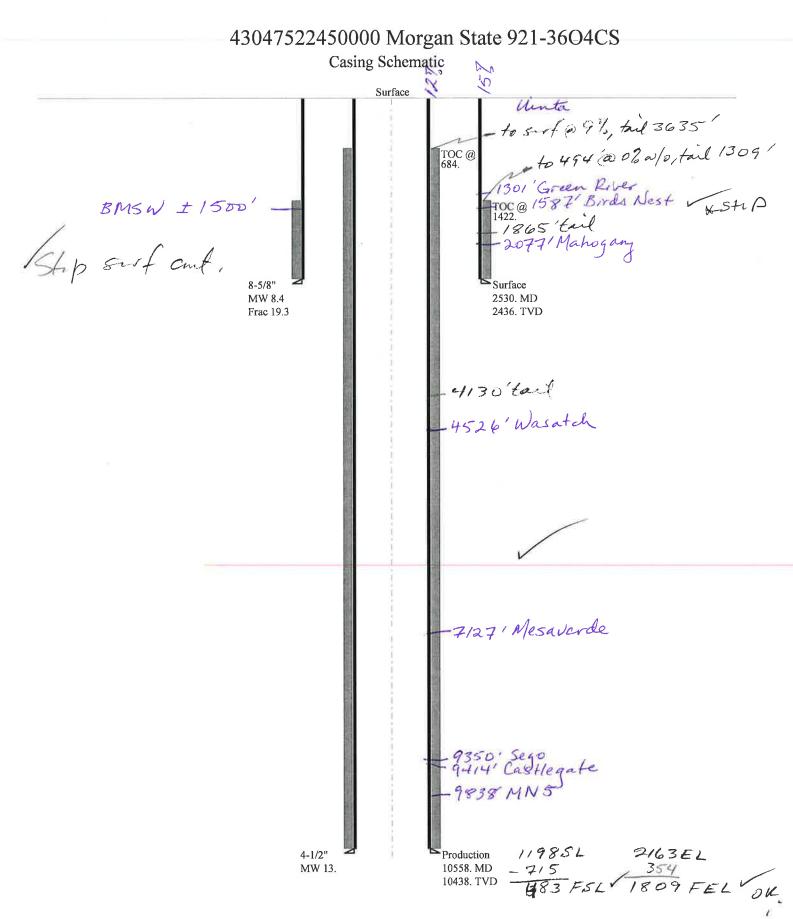
KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney Sr. Staff Landman

RECEIVED: December 20, 2011

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36O4CS 43047522450000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. Morga		P. Morgan S	State 92	1-36O4C	3			
String		SURF	PROD					ī	
Casing Size(")		8.625	4.500					ī	
Setting Depth (TVD)		2530	10558					ī	
Previous Shoe Setting Dept	h (TVD)	0	2530					<u> </u>	
Max Mud Weight (ppg)		8.4	13.0					<u> </u>	
BOPE Proposed (psi)		500	5000					<u> </u>	
Casing Internal Yield (psi)		3390	7740					<u>-</u>	
Operators Max Anticipated	Pressure (psi)	6889	12.5					i	
Calculations		SURF Str	ing				8.625	"	
Max BHP (psi)			52*Setting D	epth	*MW=	1105	i		
-						1100		BOPE Adequ	nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=	801	-	NO 8	air drill
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing D	epth)=	548		NO I	Reasonable depth in area
								*Can Full Ex	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	Previous Sh	oe D	epth)=	548		NO	
Required Casing/BOPE Tes	st Pressure=					2373		psi	
*Max Pressure Allowed @ 1	@ Previous Casing Shoe=				0		psi *Assu	mes 1psi/ft frac gradient	
Calculations		PD OD G				,	4.500		
Calculations Max BHP (psi)		PROD Str	1ng 52*Setting D)anth	*MW-		4.500		
(psi)			52 Setting L	сри	IVI VV =	7137	_	ROPE Adear	nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=	5870	_	NO I	atter of Brining from Setting Susing at Beptar
MASP (Gas/Mud) (psi)			P-(0.22*Setti		-	4814			OK
(- (0.22 27		7	4814		<u> </u>	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	- Previous Sh	oe D	epth)=	5371			Reasonable
Required Casing/BOPE Tes	st Pressure=					5000		psi	
*Max Pressure Allowed @ 1	Previous Casing	Shoe=				2530		psi *Assu	mes 1psi/ft frac gradient
Calculations		String			42.677			"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=			DODE Adeas	note For Duilling And Setting Coging at Douth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	enth)=		_		nate For Drilling And Setting Casing at Depth?
MASP (Gas/Mud) (psi)			P-(0.22*Setti		-	_		NO	
Milist (Gus/Muu) (Psi)		mux Bii	1 (0.22 5011		ерип/=	<u> </u>		*Can Full Ex	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	- Previous Sh	oe D	epth)=		=	NO I	,
Required Casing/BOPE Tes	st Pressure=							psi	
*Max Pressure Allowed @ 1	Previous Casing	Shoe=						psi *Assu	mes 1psi/ft frac gradient
		g						"	
Calculations Max BHP (psi)		String	52*Setting D)enth	*MW-		_		
man Dill (pol)		.0	52 Setting L	-cpm	141 44 -	<u> </u>		BOPE Adeas	nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=		i	NO I	, and the same at
MASP (Gas/Mud) (psi)			P-(0.22*Setti		-			NO I	
					- '			!	spected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe D	epth)=			NO	
Required Casing/BOPE Tes	st Pressure=							psi	
*Max Pressure Allowed @ 1	Previous Casing	Shoe=						psi *Assu	mes 1psi/ft frac gradient



SWSESW36-95-21E

43047522450000 Morgan State 921-36O4CS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

String type: Surface

43-047-52245

UINTAH COUNTY Location:

Environment: Minimum design factors: Design parameters: H2S considered? Collapse: No Collapse 74 °F Surface temperature: Mud weight: 8.400 ppg Design factor 1.125 Bottom hole temperature: 108 °F Design is based on evacuated pipe. Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft **Burst:** 1,422 ft Design factor 1.00 Cement top: **Burst** Max anticipated surface 2,143 psi pressure: Internal gradient: 0.120 psi/ft Directional Info - Build & Drop **Tension:** Kick-off point 300 ft Calculated BHP 2,436 psi 8 Round STC: 1.80 (J)

8 Round LTC: 1.70 (J) 1.60 (J) No backup mud specified. Buttress: 1.50 (J) Premium: Body yield: 1.50 (B)

> Tension is based on air weight. Neutral point: 2,209 ft

2 °/100ft 20° Inclination at shoe: Re subsequent strings: Next setting depth: 10,438 ft 13.000 ppg Next mud weight: Next setting BHP: 7,049 psi Fracture mud wt: 19.250 ppg 2,436 ft Fracture depth: Injection pressure: 2,436 psi

593 ft

Departure at shoe:

Maximum dogleg:

Project ID:

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
1	2530	8.625	28.00	I-55	LT&C	2436	2530	7.892	100188
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load (psi)	Strength (psi)	Design Factor	Load (psi)	Strength (psi)	Design Factor	Load (kips)	Strength (kips)	Design Factor
1	1063	1880	1.769	2436	3390	1.39	68.2	348	5.10 J

Prepared Helen Sadik-Macdonald by: Div of Oil Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 9,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2436 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047522450000 Morgan State 921-36O4CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

Production

Project ID:

String type:

43-047-52245

Location:

UINTAH

COUNTY

Environment:

Design parameters:

Collapse

Mud weight:

13.000 ppg Design is based on evacuated pipe.

Minimum design factors:

Collapse: Design factor

1.125

H2S considered? Surface temperature: No 74 °F

Bottom hole temperature: Temperature gradient:

220 °F 1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

1.80 (J) 1.80 (J)

1.60 (J)

Cement top:

684 ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

4,753 psi 0.220 psi/ft 7,049 psi

No backup mud specified.

Tension:

8 Round STC: 8 Round LTC: Buttress:

Premium:

Body yield:

1.50 (J) 1.60 (B)

Tension is based on air weight. Neutral point: 8.530 ft

Estimated cost:

158,778 (\$)

Directional Info - Build & Drop Kick-off point 300 ft Departure at shoe: 797 ft

Maximum dogleg: Inclination at shoe:

2 °/100ft o°

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	HCP-110	DQX	4880	5000	3.875	132000
1	5558	4.5	11.60	HCP-110	LT&C	10438	10558	3.875	26778
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3296	8130	2.467	5826	10690	1.83	121.1	367.2	3.03 B
1	7049	8650	1.227	7049	10690	1.52	64.5	279	4.33 J

Prepared

Helen Sadik-Macdonald

Div of Oil Gas & Mining

Phone: 801 538-5357

FAX: 801-359-3940

Date: February 9,2012 Salt Lake City, Utah

Remarks:

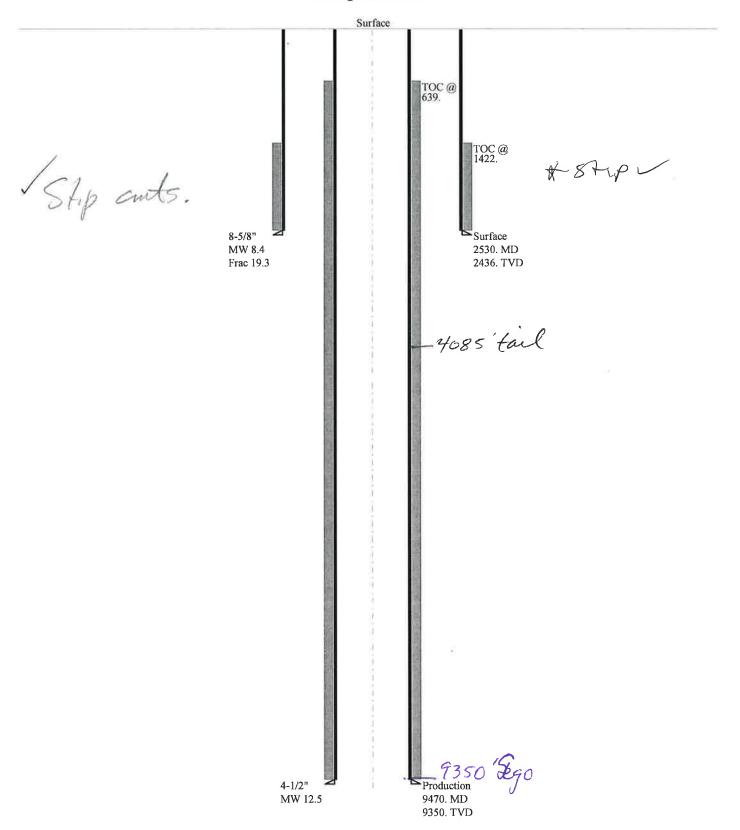
Collapse is based on a vertical depth of 10438 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522450000 Morgan State 921-36O4CS

Casing Schematic



Well name:

43047522450000 Morgan State 921-36O4CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production

Project ID:

43-047-52245

Location:

UINTAH

COUNTY

Environment: Minimum design factors:

Collapse

Mud weight: Internal fluid density:

Design parameters:

13.000 ppg 2.330 ppg Collapse:

Design factor

1.125

H2S considered? Surface temperature: No 74 °F

Bottom hole temperature: Temperature gradient:

220 °F 1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

Cement top:

684 ft

Burst

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

4,753 psi 0.220 psi/ft

7,049 psi

Buttress:

Premium: Body yield:

8 Round LTC:

Tension: 8 Round STC:

> 1.60 (J) 1.50 (J)

Directional Info - Build & Drop

Kick-off point Departure at shoe:

Maximum dogleg:

Inclination at shoe:

300 ft 797 ft 2 °/100ft 0 °

1.60 (B)

Tension is based on air weight. 8,530 ft Neutral point:

205,366 (\$)

Estimated cost:

Run	Seament		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
2	5000	4.5	11.60	1-80	DQX	4880	5000	3.875	132000
1	5558	4.5	11.60	I-80	LT&C	10438	10558	3.875	73366
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2705	5776	2.136	5826	7780	1.34	121.1	267	2.21 J
1	5786	6360	1.099	7049	7780	1.10	64.5	212	3.29 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 9,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 10438 ft, a mud weight of 13 ppg. An internal gradient of .121 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

From: Jim Davis
To: APD APPROVAL

CC: Danielle Piernot; Julie Jacobson

Date: 2/23/2012 3:22 PM

Subject: APD Approval: the Kerr McGee Morgan State wells

The following wells have been approved by SITLA including arch and paleo clearance.

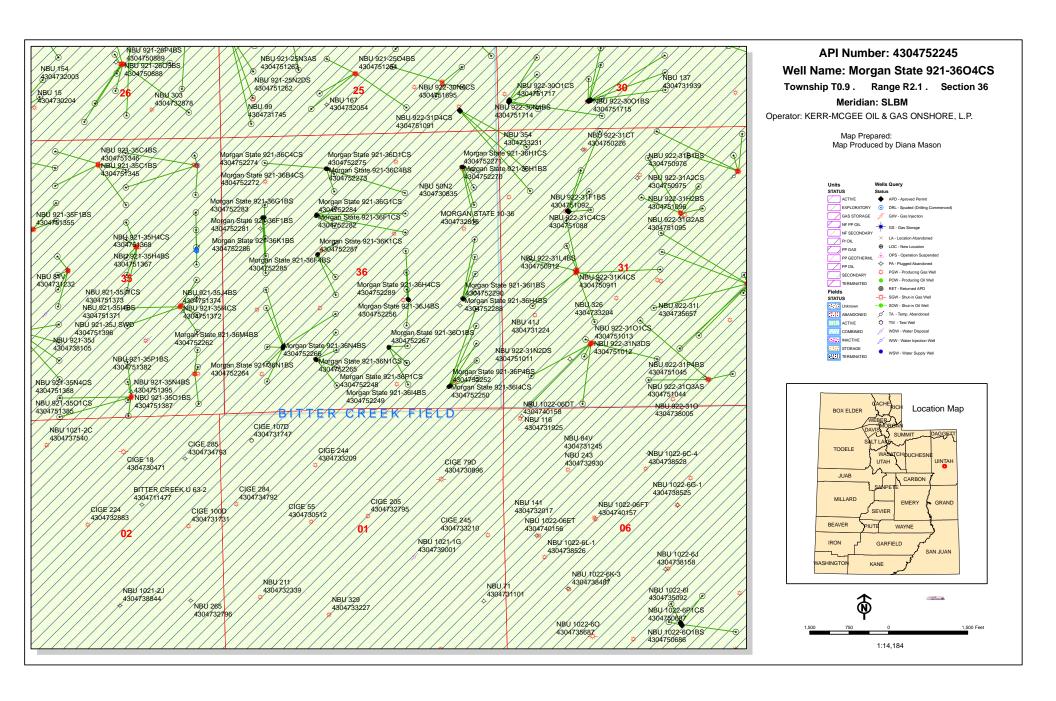
```
Morgan State 921-36G4BS
4304752246
             Morgan State 921-36G4CS
4304752253
4304752255
             Morgan State 921-36J1CS
4304752256
             Morgan State 921-36J4BS
             Morgan State 921-36F1BS
4304752281
4304752282
             Morgan State 921-36F1CS
4304752283
             Morgan State 921-36G1BS
4304752284
             Morgan State 921-36G1CS
             Morgan State 921-36F4BS
4304752285
4304752286
             Morgan State 921-36K1BS
4304752287
             Morgan State 921-36K1CS
             Morgan State 921-36P1BS
4304752247
             Morgan State 921-36P1CS
4304752248
4304752249
             Morgan State 921-36I4BS
             Morgan State 921-36I4CS
4304752250
             Morgan State 921-36P4BS
4304752252
4304752263
             Morgan State 921-36K4CS
4304752264
             Morgan State 921-36N1BS
4304752265
             Morgan State 921-36N1CS
4304752266
             Morgan State 921-36N4BS
4304752276
             Morgan State 921-36D4CS
4304752277
             Morgan State 921-36E1BS
4304752278
             Morgan State 921-36E1CS
             Morgan State 921-36E4BS
4304752279
4304752280
             Morgan State 921-36E4CS
             Morgan State 921-36O4CS
4304752245
             Morgan State 921-36O1CS
4304752254
             Morgan State 921-36O1BS
4304752267
4304752257
             Morgan State 921-36K4BS
4304752258
             Morgan State 921-36L1BS
4304752259
             Morgan State 921-36L1CS
4304752260
             Morgan State 921-36M1BS
4304752261
             Morgan State 921-36M1CS
4304752262
             Morgan State 921-36M4BS
4304752272
             Morgan State 921-36B4CS
4304752273
             Morgan State 921-36C4BS
4304752274
             Morgan State 921-36C4CS
4304752275
             Morgan State 921-36D1CS
```

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov

Phone: (801) 538-5156



ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name Morgan State 921-36O4CS

API Number 43047522450000 APD No 5098 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 SWSE Sec 36 Tw 9.0S Rng 21.0E 1198 FSL 2163 FEL

GPS Coord (UTM) 628201 4427586 Surface Owner

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGM).

Regional/Local Setting & Topography

This site is a proposed location which will require pad and reserve pit construction.

The general area is in the central portion of the Natural Buttes Unit, but this section is not part of the unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is approximately six miles. The side drainages are dry except for ephemeral flows. The washes are sometimes rimmed with steep side hills which have exposed sandstone bedrock cliffs along the rims. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Ouray, Utah is approximately 14 road miles to the northwest. Three directional wells will be drilled from this proposed pad. The location will run in a north-south direction in a very shallow bowl with low but steep ridges to the east, south, and west. Drainage is to the north. No drainage concerns exist, and no diversions will be needed. The pad should be stable and should be a suitable location for three wells, and is the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing

Wildlfe Habitat

New Road Miles Src Const Material Surface Formation

0 Width 352 Length 445 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

3/21/2012 Page 1

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran		
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the east side of the location. Dimensions are 260' x 100' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Evaluator	Date / Time
David Hackford	1/11/2012

3/21/2012 Page 1

Application for Permit to Drill Statement of Basis

3/21/2012 Utah Division of Oil, Gas and Mining

Page 1

APD No API WellNo Status Well Type Surf Owner CBM 5098 43047522450000 **LOCKED** GW No

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P. Surface Owner-APD

Well Name Morgan State 921-3604CS Unit

Field NATURAL BUTTES Type of Work DRILL

SWSE 36 9S 21E S 1198 FSL 2163 FEL GPS Coord Location

(UTM) 628214E 4427570N

Geologic Statement of Basis

Kerr McGee proposes to set 2,530' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

> Brad Hill **APD** Evaluator

2/1/2012 Date / Time

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit, but this section is not part of that unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is six miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43.6 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Three wells will be directionally drilled from this location. They are the Morgan State 921-3601BS, Morgan State 921-3601CS, and the Morgan State 921-3604CS. The pad should be stable and sufficient for three wells, and is the best site for a location in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

> David Hackford 1/11/2012 **Onsite Evaluator** Date / Time

Conditions of Approval / Application for Permit to Drill

Condition Category

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Pits The reserve pit should be located on the east side of the location.

RECEIVED: March 21, 2012

Application for Permit to Drill Statement of Basis

3/21/2012 Utah Division of Oil, Gas and Mining

Page 1

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/20/2011 API NO. ASSIGNED: 43047522450000

WELL NAME: Morgan State 921-36O4CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWSE 36 090S 210E Permit Tech Review:

> SURFACE: 1198 FSL 2163 FEL Engineering Review:

> BOTTOM: 0491 FSL 1809 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.98858 LONGITUDE: -109.49824 UTM SURF EASTINGS: 628214.00 NORTHINGS: 4427570.00

Drilling Unit

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Bond: STATE - 22013542 Unit:

Potash R649-3-2. General

Oil Shale 190-3 R649-3-3. Exception

Board Cause No: Cause 173-24

Water Permit: 43-8496

Effective Date: 10/5/2009 **RDCC Review:**

Siting: 460' Fr Exterior Lease Boundary Fee Surface Agreement

✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

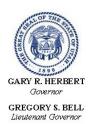
Comments: Presite Completed

Stipulations:

Oil Shale 190-5

Oil Shale 190-13

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-3604CS

API Well Number: 43047522450000

Lease Number: ML 22265 Surface Owner: STATE Approval Date: 3/21/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27

pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 26286 API Well Number: 43047522450000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9			
ι	DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265			
SUNDR	Y NOTICES AND REPORTS ON	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36O4CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522450000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PH n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH			
11. CHECK	K APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
,	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
SPUD REPORT Date of Spud:						
5/31/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	L TEMPORARY ABANDON			
DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
MIRU TRIPLE A BU RAN 14" 36.7# SCHI	COMPLETED OPERATIONS. Clearly show all p CKET RIG. DRILLED 20" CONDU EDULE 10 CONDUCTOR PIPE. (LL LOCATION ON DATE 5/31/20	JCTOR HOLE TO 40'. CMT W/28 SX READY	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 01, 2012			
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I				
SIGNATURE N/A		DATE 6/1/2012				

Sundry Number: 26626 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-3604CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522450000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 86 Township: 09.0S Range: 21.0E Meridia	an: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOF	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 5/31/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
5/31/2012	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date.		I SI TA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show all CKET RIG. DRILLED 20" CONDUCTOR PIF I. SPUD WELL LOCATION ON HRS.	DUCTOR HOLE TO 40'. PE. CEMENT WITH 28	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 07, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBE		
SIGNATURE	720 929-6304	Regulartory Analyst DATE	
N/A		6/7/2012	

SUBMIT AS EMAIL

Print Form

BLM - Vernal Field Office - Notification Form

Oper	rator KERR-McGEE OIL & GA	<u>S</u> Rig Name/# <u>B</u>	UCKET RIG
Subr	nitted By <u>J. Scharnowske</u>	Phone Number 7	20.929.6304
Well	Name/Number MORGAN ST	ATE 921-3604CS	
	Qtr <u>swse</u> Section 36		Range 21E
	e Serial Number ML 22265		
API I	Number <u>4304752245</u>		
Spuc	<u>1 Notice</u> – Spud is the initial	spudding of the	well, not drilling
out b	pelow a casing string.		
		<u></u>	nilating projections
	Date/Time <u>05/29/2012</u>	11:00 HRS AM	PM
Casir times	ng – Please report time casi s. Surface Casing Intermediate Casing Production Casing Liner Other	ng run starts, no	t cementing
	Date/Time <u>06/16/2012</u>	08:00 HRS AM	PM
BOPI	E Initial BOPE test at surface BOPE test at intermediate (30 day BOPE test Other		
	Date/Time	AM [PM
Rem	arks estimated date and time. Plea	SE CONTACT KENNY GATHI	NGS AT
435.82	8.0986 OR LOVEL YOUNG AT 435.781.705	51	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

zip 80217 state CO

Phone Number: (720) 929-6029

Well 1

API Number	Well	Name	QQ Sec Twp		Rng County				
4304752267	MORGAN ST	TE 921-3601BS SWSE 36 9S		21E	1E UINTAH				
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		ity Assignment		
A	99999	18564	5	5/29/2012		61	6114 12012		
omments: MIRU	BUCKET RIG.		κ	WRD					

SPUD WELL LOCATION ON 5/29/2012 AT 9:30 HRS. BH L : SWSE

Well 2

API Number	Well	QQ	Sec	Twp	Rng	County			
4304752254	MORGAN S	TATE 921-3601CS	SWSE	36	98	21E	UINTAH		
Action Code	Current Entity Number	New Entity Number	s	Spud Date		Entity Assignment Effective Date			
<u> </u>	99999	18515	5	5/29/2012			61 14 13012		
Comments: MIRU	BUCKET RIG.	N 5/20/2012 AT 14:00	NBC M	WRD					
01 01	WELL LOCATION O	N 3/23/2012 AT 14:00	HKS. RY	11:5	<u>Sws</u>	e			

Well 3

API Number	Well	Name	QQ Sec Twp			Rng	Rng County	
4304752245	MORGAN S	TATE 921-3604CS	SWSE	36	98	21E	UINTAH	
Action Code	Current Entity Number	New Entity Number	s	Spud Date 5/31/2012			ty Assignment ffective Date	
#	99999	19566	5			6	6/14/12012	
Comments: MIRU SPUE	BUCKET RIG. WELL LOCATION O	N 5/31/2012 AT 7:00 H	MY IRS. BH	VRD 1 · · · ·	1275.	9		

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
 E Other (Explain in 'comments' section)

CARA MAHLER Name (Please Print)

Signature

REGULATORY ANALYST Title

6/1/2012 Date

(5/2000)

JUN 0 6 2012

Sundry Number: 27212 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIT		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-36O4CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522450000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 86 Township: 09.0S Range: 21.0E Merio	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
6/26/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
l .	wildcat well determination COMPLETED OPERATIONS. Clearly show 6/24/2012. DRILLED SURFACE		depths, volumes, etc. Accepted by the
	AND CEMENTED. WELL IS WANT JOB WILL BE INCLUDED W		Utah Division of Oil, Gas and Mining
	REPORT.		FOR RECORD ONLY July 02, 2012
NAME (PLEASE PRINT)	PHONE NUME		
Cara Mahler	720 929-6029	Regulatory Analyst I	
SIGNATURE N/A		DATE 6/29/2012	

Sundry Number: 28474 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for pro current bottom-hole depth, r FOR PERMIT TO DRILL form	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-3604CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522450000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHO n Street, Suite 600, Denver, CO, 80217 377	DNE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	IIP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH
11. CHECK	CAPPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
_	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:		CHANGE TUBING	CHANGE WELL NAME
SUBSEQUENT REPORT		COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT	CONVERT WELL TYPE NEW CONSTRUCTION
Date of Work Completion:		PLUG AND ABANDON	PLUG BACK
SPUD REPORT		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
		VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
8/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show all permonth of July 2012. Surface ca		epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 07, 2012
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I	
SIGNATURE N/A		DATE 8/2/2012	

Carol Daniels - PRODUCTION CASING ON MORGAN STATE 921-3601CS

5-36 TO93 RZIE 43-047-52245

From:

"Anadarko - H&P 298" <hp298@gesmail.net>

To:

<caroldaniels@utah.gov>

Date:

8/3/2012 6:10 AM

Subject: PRODUCTION CASING ON MORGAN STATE 921-3601CS

CAROL.

WILL TD TODAY FRIDAY 8/3/2012 @ 9,415, ON MORGAN STATE 921-3601CS,H&P 298,WE WILL BE RUNNING 41/2 PROD CSG & CEMENTING,SATURDAY 8-4-12 & THEN SKID OVER TO MORGAN STATE 921-3604CS ON SUNDAY 8/5/2012,MORNING & DO INITIAL PRESSURE TEST ON BOP,S FOR MORGAN STATE 921-3604CS

Have a nice day

JIM MURRAY H&P 298 OFFICE 435 828-0957 CELL 425 828-0956 Hp298@gesmail.net

RECEIVED

AUG 03: 2012

DIV. OF OIL. GOARD PROTE

Sundry Number: 28911 API Well Number: 43047522450000

			FORM 9						
	STATE OF UTAH								
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265						
SUNDR	Y NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME:								
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-3604CS						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522450000						
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PI n Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian	: S	STATE: UTAH						
11. CHECH	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	T, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME						
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION						
8/12/2012	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK						
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON						
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL						
DRILLING REPORT									
Report Date:	L WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
		OTHER	OTHER: ACTS PIT						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2664' TO 10545' ON 8/9/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P 298 RIG ON 8/12/2012 @ 4:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 29, 2012									
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I							
SIGNATURE N/A		DATE 8/14/2012							

Sundry Number: 30510 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
I	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
	RY NOTICES AND REPORTS ON	_	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizonta n for such proposals.	epen existing wells below I laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian	: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all pages are month of September 2012.		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Depths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 05, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/3/2012	

Sundry Number: 31647 API Well Number: 43047522450000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND M	-	3	5.LEASE ML 22	DESIGNATION AND SERIAL NUMBER: 265
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF INC	DIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT o	or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well					NAME and NUMBER: AN STATE 921-3604CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API N 43047	UMBER: 522450000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6		and POOL or WILDCAT:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL				COUNTY	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	HIP, RANGE, MERIDIAN: 66 Township: 09.0S Range: 21.0E Mer	idian: \$	5	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR C	OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT		NEW CONSTRUCTION
	OPERATOR CHANGE	F	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	F	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	TUBING REPAIR		/ENT OR FLARE		WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION		APD EXTENSION
11/5/2012	WILDCAT WELL DETERMINATION		OTHER	отн	ER:
No Activity for	COMPLETED OPERATIONS. Clearly show the month of October 2012	v all pe	rtinent details including dates, d	o FO	<u> </u>
Jaime Scharnowske	PHONE NUM 720 929-6304	REK	TITLE Regulartory Analyst		
SIGNATURE N/A			DATE 11/5/2012		

Sundry Number: 32769 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
I	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly de reenter plugged wells, or to drill horizont n for such proposals.	eepen existing wells below al laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-3604CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522450000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridia	n: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
12/3/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show all completing the well. Well TD		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 04, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBE 720 929-6304	R TITLE Regulartory Analyst	
SIGNATURE		DATE	
N/A		12/3/2012	

Sundry Number: 33148 API Well Number: 43047522450000

	STATE OF UTAH			FORM 9
1	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS	S ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-3604CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522450000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Mer	ridian: S		STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICA	CATE NA	TURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		TER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	С	HANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	□ co	DMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FR	RACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PL	UG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RE	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	☐ sii	DETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VE	ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	☐ sı	TA STATUS EXTENSION	APD EXTENSION
12/14/2012	WILDCAT WELL DETERMINATION	☐ oī	THER	OTHER:
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	w all pert	tinent details including dates, d	<u> </u>
	II was placed on productior I History will be submitted v report.			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 17, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUM 720 929-6857	MBER	TITLE Regulatory Analyst II	
SIGNATURE			DATE	
N/A		- 1	12/17/2012	

Sundry Number: 33589 API Well Number: 43047522450000

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-3604CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522450000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802	PHONE NUMBER: 17 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1198 FSL 2163 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	flp, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
✓ DRILLING REPORT	L TUBING REPAIR		☐ WATER DISPOSAL ☐
Report Date: 1/3/2013	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	APD EXTENSION
1,0,2010	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Well was completed	COMPLETED OPERATIONS. Clearly show, finishing well completion	report. Well TD at 10,545	
NAME (PLEASE PRINT) Laura Abrams	PHONE NUM 720 929-6356	BER TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 1/3/2013	

				TMENT		TURA	L RESC	OURCES MININ				(hi	ghlight cha	NATION AND	FORM	8
WEL	L COM	PLET	ION	OR R	ECO	MPL	ETIC	ON RI	EPOF	RT AND	LOG	6. IF	INDIAN, AL	LOTTEE OR TE	RIBE NAME	
a. TYPE OF WELL		OI W		LL GAS VELL OTHER									NIT or CA AC	GREEMENT NA	ME	
b. TYPE OF WORK	C: HORIZ. LATS.	DE	EP- RE- DIFF. OTHER											and NUMBER:	921-36040	 S
NAME OF OPERA	ATOR:	8.GA			····		RESVK.		OIF	ER		9. A	PI NUMBER:			
P.O.BOX 17	ERATOR:			NVER			: CO	ZIP 802	217		NUMBER: 0) 929-6000	10 F	IELD AND PO	OOL, OR WILD AL BUTT		
AT SURFACE:	SWSE 1	198 F	anname eye	and the second				15 FE	L S36,	T9S,R2	1E	1.1		ection, town	nship, range,	
AT TOTAL DEPT	н: SWSI	≣ 465 I	FSL 17	764 FE	L S36	6,T9S	,R21E	.					COUNTY JINTAH		13. STATE UTA	Н
4. DATE SPUDDED 5/31/2012		8/9/20		HED:	16. DATE	COMPL 4/20		,	ABANDON	ED 🗌	READY TO PRODUC	CE 🔽		TIONS (DF, RK 7 RKB	B, RT, GL):	
8. TOTAL DEPTH:	MD 10, TVD 10,		19	9. PLUG B	BACK T.D.		10,48 10,38	The state of the s	20. IF	MULTIPLE CO	OMPLETIONS, HOW	MANY? *	21. DEPTH PLUG			
2. TYPE ELECTRIC	L/TEMP						·			WAS DST	L CORED? RUN? NAL SURVEY?	NO NO NO	YES	S (Sul	omit analysis) omit report) omit copy)	
4. CASING AND LI	SIZE/GRA	 -	WEIGHT		TOP (N	/ID)	вотто	OM (MD)		CEMENTER EPTH	CEMENT TYPE & NO. OF SACKS	SLU		CEMENT TOP *	* AMOUNT PULL	ED
20"	14"	STL	36.7	, 	0		4	10			28					
11"	8 5/8"	J-55	28#		0		2,	641			550			0		
7 7/8"	4 1/2" F	-110	11.6	i#	0		10	,536			1,867			RECE	EIVED	
						_								JAN 1	5 2013	
							-									
5. TUBING RECOF	RD.														IAS & MINING	
SIZE 2 3/8"	10,0		PACKE	R SET (M	D)	SIZE		DEPTH	SET (MD) PACKE	R SET (MD)	SIZE	DEP	TH SET (MD)	PACKER SET (M	D)
6. PRODUCING IN	TERVALS									27. PERFO	RATION RECORD					
FORMATION	NAME	TOP	(MD)	BOTTOM	(MD)	TOP	(TVD)	вотто	M (TVD)	INTERVA	L (Top/Bot - MD)	SIZE	NO. HOLES		RATION STATUS	
MESAVE	RDE	7,2	277	10,2	258					7,277	10,258	0.36	237	Open 🗸	Squeezed	
3)										<u> </u>			-	Open	Squeezed	
C)														Open	Squeezed	
D)								<u> </u>		21 HV2995				Open	Squeezed	
8. ACID, FRACTUF		NT, CEME	NT SQUE	EZE, ETC.												
	NTERVAL										YPE OF MATERIAL					
7277-10,258						SLS S	LICK	H2O 8	k 272,4	116 LBS	30/50 OTTA	WA SA	AND			
			10 S	TAGES	<u>S</u>						<u></u>			·		
			<u> </u>											20 WE	LŁ STATUS:	

(CONTINUED ON BACK)

GEOLOGIC REPORT

CORE ANALYSIS

✓ DIRECTIONAL SURVEY

PROD

DST REPORT

ELECTRICAL/MECHANICAL LOGS

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

31 INITIAL PRODUCT	ION.

INTERVAL A (As shown in item #26)

DATE FIRST PR 12/14/20		TEST DATE: 12/20/20	12	HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,423	WATER – BBL:	PROD. METHOD: FLOWING
сноке size: 20/64	TBG. PRESS.	CSG. PRESS. 2,805	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: O	GAS – MCF: 2,423	WATER – BBL:	INTERVAL STATUS: PROD
• 11				INT	ERVAL B (As sho	wn in item #26)	=	***************************************		
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED		TEST PRODUCTION RATES: →	OIL BBL:	GAS – MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
	<u></u>		<u> </u>	INT	RVAL C (As sho	wn in item #26)	·			
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
				INT	RVAL D (As sho	wn in item #26)				
DATE FIRST PR	TEST DATE: HOURS TESTED:		:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER BBL:	PROD. METHOD:		
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

34. FORMATION (Log) MARKERS:

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,403 1,725 2,077 4,646 7,276

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 212' of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. DQX P-110 csg was run from surface to 5087'; LTC P-110 csg was run from 5087' to 10,536'. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) LINDSEY FRAZIER

TITLE REGULATORY ANALYST

SIGNATURE MA

DATE 1/10/2013

This report must be submitted within 30 days of

completing or plugging a new well

drilling horizontal laterals from an existing well bore

recompleting to a different producing formation

reentering a previously plugged and abandoned well

- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION

Operation Summary Report

Spud Date: 6/24/2012 Well: MORGAN STATE 921-36O4CS YELLOW Site: MORGAN STATE 921-360 PAD Rig Name No: H&P 298/298, CAPSTAR 310/310 Project: UTAH-UINTAH Event: DRILLING Start Date: 6/5/2012 End Date: 8/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea					UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1198/E/0/2163/0/0			
Level) Date	i s	Time tart-End	Duration (hr)	Phase	Code	Sub Code	_ P/U	MD From Operation (usft)
6/24/2012		- 10:30	3.50	MIRU	01	A	Р	SKID RIG & RIG UP
		- 12:30 - 13:00	2.00	PRPSPD	01 06	B	P P	WELD ON RISER HOOK UP LINES PICK UP 11" BIT & DIRECTIONAL TOOLS
	13:00	- 14:30 - 14:30	0.50	DRLSUR	02	A A	' P	SPUD DRILL 12.25" SURFACE HOLE F/ 49'-210' ROP= 161' @ 81 FPH WOB= 14/22K RPM= 55/105 SPP=720/500 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 32/28/30 NO LOSSES HOLE IN GOOD SHAPE PULL OUT OF HOLE
		- 16:30	1.50	DRLSUR	06	A	P	PICK UP 11.00" BIT AND DIR. TOOLS SCRIBE TRIP IN HOLE
	16:30	- 0:00	7.50	DRLSUR		D	Р	DRILL 11.00" SURFACE HOLE F/ 210'-1095' ROP= 885' @ 118' FPH WOB= 22/30K RPM= 55/105 SPP=1142/800 GPM= 595 TRQ= 2900/1900 UP/DWN/ROT = 74/68/54 NO LOSSES HOLE IN GOOD SHAPE
6/25/2012	0:00	- 7:30	7.50	DRLSUR	02	D	Р	DRILL 11.00" SURFACE HOLE F/ 1095'-1691' ROP= 596' @ 79' FPH WOB= 22/30K RPM= 55/105 SPP=1149/785 GPM= 540 TRQ= 2900/1900 UP/DWN/ROT = 84/64/78 NO LOSSES HOLE IN GOOD SHAPE
	7:30	- 8:30	1.00	DRLSUR	22	0	Z	*** FAILURE: RIG EQUIPMENT 9 (ROTATING RUBBER)
	8:30	- 9:00	0.50	DRLSUR	07	Α	P	RIG SERVICE

9:54:58AM 1/7/2013

Operation Summary Report

Well: MORGAN	STATE	921-36O4CS	YELLOW					Spud Date: 6/24/2012
Project: UTAH-	UINTAH			Site: MOF	RGAN ST	ATE 92	1-360 PAE	Rig Name No: H&P 298/298, CAPSTAR 310/310
Event: DRILLIN	IG			Start Date	e: 6/5/201	2		End Date: 8/12/2012
Active Datum: F	RKB @5,0)37.00usft (al	oove Mean S	Sea	UWI: SV	N/SE/0/	9/S/21/E/36	5/0/0/26/PM/S/1198/E/0/2163/0/0
Level)	orale, was well dis-	PENDERES SEGMENT	25 x 500 (24 5 a 1 7 7 2 6	Files distribute	I sala a provincia	V SEEKS	1 <u>8232</u> 27678	over the responsive telephone to the contract of the contract of the respective telephone the contract of the
Date	201 300 300 000 10	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	9:00	- 23:00	14.00	DRLSUR	02	D	P	DRILL 11.00" SURFACE HOLE F/ 1691'-2664'
								ROP= 973' @ 69.5' FPH
								WOB= 22/30K RPM= 55/105
								SPP=1332/1032
								PUMP RATE= 540 GPM
								TRQ= 2900/1900
								UP/DWN/ROT =113/73/95
								NO LOSSES
								HOLE IN GOOD SHAPE
I	02.00		4.00	DDI OUD	0.5	^	ь	TD @ 23:00 5' LEFT AND 1' HIGH OF LINE
	23:00	- 0:00	1.00	DRLSUR	05	C	P	CIRCULATE FOR CASING
6/26/2012	0:00	- 4:00	4.00	CSGSUR	06	D	P	LDDS, BHA & DIRECTIONAL TOOLS.
	4:00	- 4:30	0.50	CSGSUR	12	Α	Р	RIG UP TO RUN CASING
	4:30	- 6:00	1.50	CSGSUR	12	С	Р	RUN 58 JTS, 8 5/8, 28#, J55 CASING
								SHOE @ 2624'
	6:00	- 6:30	0.50	CSGSUR	05	D	Р	BAFFLE @ 2578' PUMP ON CASING
	6:30					В	P	
	0.30	- 7:30	1.00	CSGSUR	12	Ð	Р	HELD SAFETY MEETING RIG UP CEMENTERS
	7:30	- 8:30	1.00	CSGSUR	12	Е	Р	HELD SAFETY MEETING WITH PRO PETRO CMT
		0.00	1100	0000011		_	•	CREW
								MAKE UP CMT HEAD
								PRESSURE TEST LINES TO 2000 PSI.
								PUMP 20 BBLS WATER AHEAD FOLLOWED BY 20
								BBL GEL WATER FLUSH
								PUMP 250 SX (170 BBLS) LEAD CLASS G CMT @
								11.0 WT & 3.82 YIELD PUMP 200 SX (41BBLS) TAIL CLASS G CMT @ 15.8
								WT & 1.15 YIELD
								DROP PLUG & DISPLACE W/ 157 BBL'S WATER
								BUMP PLUG W/ 800 PSI
								FINAL LIFT =600 PSI
								CHECK FLOATS FLOAT HELD
	8:30	- 9:30	1.00	CSGSUR	13	Α	Р	CUT & HANG DIVERTER HEAD
								CUT CASING
								RUN 1"
	9:30	- 11:30	2.00	CSGSUR	12	Е	Р	PUMP 100 SXS (20.4 BBLS DOWN BACKSIDE MOVE RIG OFF OF HOLE
		11,00	2.00	355551	14	-	•	RUN 150' 1" DOWN BACKSIDE OF MORGAN STATE
								921-3601CS (TAGGED CEMENT)
								PUMPED 125 SXS DOWN BACKSIDE
								CEMENT TO SURFACE ON ALL WELLS ON PAD
								RELEASE RIG @ 12:00
8/4/2012		- 21:00	1.00	RDMO	01	C	P -	SKID RIG 10' ,,ALIGN OVER WELL
	21:00	- 23:30	2.50	PRPSPD	14	Α	P	NIPPLE UP BOPS,FLOWLINE,MUD LINE,WATER
	22.20	0.00	O F0	DDDCOD	4 <i>F</i>	۰,	В	LINE,RU AFTER SKID
	23:30	- 0:00	0.50	PRPSPD	15	A	Р	CT-JSA W/ A-1 TESTER,RIG UP TO TEST CASING

Operation Summary Report

	STATE 921-36O4		Jan				Spud Date: 6/2	
ject: UTAH-I	JINTAH		Site: MOI	RGAN ST	ATE 921	-360 PAD)	Rig Name No: H&P 298/298, CAPSTAR 310/310
ent: DRILLIN	G	_	Start Date		_			End Date: 8/12/2012
ive Datum: F ⁄el)	RKB @5,037.00usft	(above Mean S	Sea	UWI: SI	N/SE/0/9	/S/21/E/36	8/0/0/26/PM/S/11	98/E/0/2163/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/5/2012	0:00 - 3:30 3:30 - 4:30	3.50	PRPSPD	15 14	В	P		PRESSURE TEST CASING 1500 HIGH 250 LOW FOR 30 MIN / PRESSURE TEST H&P EQUIP BLIND RAMS, PIPE RAMS, FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES, HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5 MINUTES + 2500 PSI HIGH INSTALL WEAR BUSHING, & ROTATING HEAD
								BEARING ASSEMBLY
	4:30 - 5:00	0.50	PRPSPD	15	Α	Р		TEST MI SWACO MPD CHOKE EQUIP TO 1,000 PSI
	5:00 - 8:00 8:00 - 9:00	3.00	PRPSPD	06	A	P		PICK UP BHA-,MUD MTR,BIT ,DIRECTIONAL TOOLS,INSTALL MWD & SCRIBE,RIH & TEST TOOLS,TIH TAG CEMENT @ 2,488' ,BREAK CIRC
	8:00 - 9:00 9:00 - 10:00	1.00	DRLPRO	07 02	B F	P		LEVEL DERRICK,PRE SPUD INSPECTION, INSTALL ROTATE RUBBER DRILL FLOAT TRAC F/ 2488-BAFFLE @ 2,583,
	10:00 - 14:30	4.50	DRLPRO	02	, D	r		SHOE @ 2,629, OPEN HOLE TO 2,681 DRILL /SLIDE / SURVEY/ F/ 2,681-3,281 = 600' @
	14:30 - 15:00	0.50	DRLPRO	07	Α	P		WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 1,925/1,665 TORQUE ON/OFF BTM 6,000/ 4,000 PICK UP WT 108,000 SLACK OFF WT 90,000 ROT WT 100,000 SLIDE 20' IN 15 MIN 3.3 % OF FOOTAGE DRILLED,5.56 %OF HRS DRILLED MUD WT 8.4 VIS 26, NOV-D WATER SWACO OFF LINE NO FLARE DAILY RIG SERVICE
	15:00 - 0:00	0.50 9.00	DRLPRO	07	D D	P P		DRILL /SLIDE / SURVEY/ F/ 3,281-4,505 = 1,224' @
	3.30							136 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,875 TORQUE ON/OFF BTM 8,000/ 5,000 PICK UP WT 132,000 SLACK OFF WT 106,000 ROT WT 120,000 SLIDE 69' IN 55 MIN 5.6 % OF FOOTAGE DRILLED,10.5 %OF HRS DRILLED MUD WT 8.4 VIS 26, NOV-D WATER SWACO OFF LINE

Well: MORGAN :	STATE 921-36O4CS	YELLOW					Spud Date: 6/2	24/2012
Project: UTAH-U	INTAH	· · · · · · · · · · · · · · · · · · ·	Site: MOF	RGAN ST	ATE 921-	360 PAI	o	Rig Name No: H&P 298/298, CAPSTAR 310/310
Event: DRILLING			Start Date	e: 6/5/201	12			End Date: 8/12/2012
Active Datum: Rh Level)	KB @5,037.00usft (at	oove Mean S	ea	UWI: SV	N/SE/0/9/	S/21/E/3	6/0/0/26/PM/S/11	98/E/0/2163/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/6/2012	0:00 - 6:00 6:00 - 14:30	6.00	DRLPRO	02	D D	P		DRILL /SLIDE / SURVEY/ F/ 4,505-5,225 = 720 @ 120 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 1,800/1,635 TORQUE ON/OFF BTM 8,000/ 6,000 PICK UP WT 148,000 SLACK OFF WT 112,000 ROT WT 129,000 SLIDE 25' IN 35 MIN 3.7 % OF FOOTAGE DRILLED,9.7 %OF HRS DRILLED MUD WT 8.5 VIS 27, MAKE UP WATER 120 BBLS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER SWACO OFF LINE NO FLARE DRILL /SLIDE / SURVEY/ F/ 5,225-6,210 = 985 @ 115.8 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,045/1,825 TORQUE ON/OFF BTM 9,000/ 8,000 PICK UP WT 171,000 SLACK OFF WT 121,000 ROT WT 144,000 SLIDE 45' IN 45 MIN 4.75 % OF FOOTAGE DRILLED,8.82 %OF HRS DRILLED MAKE UP WATER 250 BBLS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.5 VIS 27, NOV-D WATER SWACO OFF LINE NO FLARE
	14:30 - 15:00	0.50	DRLPRO	07	Α	Р		NO FLARE DAILY RIG SERVICE

1/7/2013 9:54:58AM

Operation Summary Report

Well: MORGAN	STATE 921-36O4CS	YELLOW					Spud Date: 6/2	4/2012		
Project: UTAH-U	IINTAH		Site: MOF	RGAN ST	ATE 92	1-360 PA	D	Rig Name No: H&P 298/298, CAPSTAR 310/310		
Event: DRILLING	3		Start Date	e: 6/5/201	12			End Date: 8/12/2012		
Active Datum: R .evel)	KB @5,037.00usft (ab	ove Mean S	ea	UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1198/E/0/2163/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
8/7/2012	15:00 - 0:00 0:00 - 6:00	9.00	DRLPRO	02	D	P		DRILL / SURVEY/ F/ 6,210-7,150 = 940 @ 104.4 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,175/ 1,900 TORQUE ON/OFF BTM 12,000/ 10,000 PICK UP WT 194,000 SLACK OFF WT 136,000 ROT WT 159,000 NO SLIDES MAKE UP WATER 155 BBLS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.5 VIS 27, NOV-D WATER SWACO OFF LINE NO FLARE DRILL /SLIDE / SURVEY/ F/ 7,150-7,600 = 450' @ 75 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,250/ 1,990 TORQUE ON/OFF BTM 11,000/ 10,000 PICK UP WT 204,000 SLACK OFF WT 142,000 ROT WT 168,000 SLIDE 57' IN 75 MIN 12.6 % OF FOOTAGE DRILLED,20.8 %OF HRS DRILLED MAKE UP WATER 112 BBLS /18-20 BBLS HR LOSS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.5 VIS 27, NOV-D WATER SWACO OFF LINE NO FLARE		

Operation Summary Report

Well: MORGAN STATE 921-36	04CS YELLOW					Spud Date: 6/24/2012
Project: UTAH-UINTAH		Site: MOR	RGAN ST	ATE 921-	360 PAE	Rig Name No: H&P 298/298, CAPSTAR 310/310
Event: DRILLING		Start Date	: 6/5/201	2		End Date: 8/12/2012
Active Datum: RKB @5,037.00u .evel)	usft (above Mean Sea	3	UWI: SV	V/SE/0/9/\$	S/21/E/36	6/0/0/26/PM/S/1198/E/0/2163/0/0
Date Time Start-End	\$198,750 http://www.html/html/html	Phase	Code	Sub Code	P/U	MD From Operation (usft)
6:00 - 14:		DRLPRO	02	D	P	DRILL /SLIDE / SURVEY/ F/ 7,600-8,409 =809' @95.1 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,120/ 2,025 TORQUE ON/OFF BTM 13,000/ 12,000 PICK UP WT 210,000 SLACK OFF WT 140,000 ROT WT 174,000 SLIDE 75' IN 115 MIN 9.2 % OF FOOTAGE DRILLED,22.5 %OF HRS DRILLED MAKE UP WATER 115 BBLS /13-15 BBLS HR LOSS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.8 VIS 30, NOV-RUN CONVENTIONAL SWACO ON LINE 8,335 ANN PRESS 160 15-20' FLARE
14:30 - 15:	30 1.00	DRLPRO	08	В	Z	WORK ON BOTH MUD PUMPS PULL 1 STAND OFF BOTTOM WORK PIPE ,CHANGE OUT,CHAGRER PUMP #1 DISCHARGE VALVES #2 *** FAILURE RIGEQUIPMENT
15:30 - 15:	30 0.00	DRLPRO	02	D	Р	DRILL FROM / 8,409 TO 8,476
15:30 - 17:	00 1.50	DRLPRO	14	В	₽	CHANGE OUT ROTATING RUBBER
17:00 - 17:	30 0.50	DRLPRO	07	Α	Р	DAILY RIG SERVICE
17:30 - 0:0	00 6.50	DRLPRO	02	D	P	DRILL / SURVEY/ F/ 8,409-8,890 =481" @74 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 75-90 PUMPS 100-110 SPM= 450-495 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,820 TORQUE ON/OFF BTM 14,000/ 13,000 PICK UP WT 234,000 SLACK OFF WT 148,000 ROT WT 188,000 NO SLIDES MAKE UP WATER 60 BBLS / 8-10 BBLS HR LOSS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.8 VIS 34, NOV-RUN CONVENTIONAL SWACO ON LINE 8,890 ANN PRESS 140 (9.2) 10-15' FLARE

Operation Summary Report

Well: MORGAN	STATE 921-36O4C	S YELLOW					Spud Date: 6/2	4/2012		
Project: UTAH-l	UINTAH		Site: MOF	RGAN ST	ATE 921	-360 PAE)	Rig Name No: H&P 298/298, CAPSTAR 310/310		
vent: DRILLIN	IG		Start Date	e: 6/5/201	2			End Date: 8/12/2012		
active Datum: F evel)	RKB @5,037.00usft (a	above Mean S	Sea	UWI: SV	N/SE/0/9	/S/21/E/3	5/0/0/26/PM/S/11	NS/1198/E/0/2163/0/0		
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation		
	Start-End	(hr)			Code		(usft)			
8/8/2012	0:00 - 6:00	6.00	DRLPRO					DRILL/ SURVEY/ F/ 8,890-9,265 =375' @ 62.5 FPH		
								WOB 20,000-28,000		
								TOP DRIVE RPM 40-75		
								MUD MOTOR RPM 90		
								PUMPS 105 SPM= 475 GPM		
								PUMP PRESSURE ON/OFF BTM 2,000/ 1,820		
								TORQUE ON/OFF BTM 14,000/ 13,000		
								PICK UP WT 238,000		
								SLACK OFF WT 164,000		
								ROT WT 183,000		
								NO SLIDES		
								MAKE UP WATER 60 BBLS /10-12 BBLS HR LOSS		
								PUMPING 5-10 BBL SWEEPS ,W/ CAL		
								CARBONATE, ANCO FIBER, MAXI SEAL EVERY 100'		
								MUD WT 8.8 VIS 33,		
								NOV-CONVENTIONAL;		
								SWACO ON LINE ANN PRESS @ 9,229 = 540 PSI		
								(9.9) @ 9,265' ANN PR=180 PSI = 9.6 PPG 15-20' FLARE		
	6:00 - 17:00	11.00	DRLPRO	02	D	Р		DRILL/ SURVEY/ F/ 9,265-9,797 =532' @ 48.3 FPH		
		, ,,, -			_			WOB 20,000-29,000		
								TOP DRIVE RPM 40-75		
								MUD MOTOR RPM 72		
								PUMPS 105 SPM= 450 GPM		
								PUMP PRESSURE ON/OFF BTM 2,400/ 2,270		
								TORQUE ON/OFF BTM 15,000/ 14,000		
								PICK UP WT 246,000		
								SLACK OFF WT 157,000		
								ROT WT 198,000		
								NO SLIDES		
								MAKE UP WATER 10 BBLS		
								PUMPING 5-10 BBL SWEEPS ,W/ CAL		
								CARBONATE, ANCO FIBER, MAXI SEAL EVERY 100'		
								MUD WT 8.9 VIS 33,		
								NOV-CONVENTIONAL;		
								SWACO ON LINE ANN PRESS @ 9,770 = 258 PSI		
								(9.9) PPG		
	47.00	0.50	DDI DDC	07		Б		15-20' FLARE		
	17:00 - 17:30	0.50	DRLPRO	07	Α	Р		DAILY RIG SERVICE		

1/7/2013 9:54:58AM

Well: MORGAN	STATE 921-3604CS	YELLOW					Spud Date: 6/2	24/2012	
Project: UTAH-U	INTAH		Site: MOI	RGAN ST	TATE 921-	360 PAI		Rig Name No: H&P 298/298, CAPSTAR 310/310	
Event: DRILLING	3		Start Date	e: 6/5/201	12			End Date: 8/12/2012	
Active Datum: RI Level)	KB @5,037.00usft (ab	ove Mean S	ea	UWI: SI	W/SE/0/9/	S/21/E/3	/0/0/26/PM/S/11	198/E/0/2163/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
8/9/2012	17:30 - 0:00	6.50 6.00	DRLPRO	02	D D	P	(usit)	DRILL/ SURVEY/ F/ 9,797-10,024 =227' @ 37.8 FPH WOB 20,000-29,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 72 PUMPS 105 SPM= 450-475 GPM PUMP PRESSURE ON/OFF BTM 2,400/ 2,270 TORQUE ON/OFF BTM 16,000/ 15,000 PICK UP WT 252,000 SLACK OFF WT 157,000 ROT WT 198,000 NO SLIDES MAKE UP WATER 10 BBLS PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.7 VIS 33, NOV-CONVENTIONAL; SWACO ON LINE DRILLING ANN PRESS @ 9,985 = 780 PSI (10.8) PPG 15-20' FLARE DRILL/ SURVEY/ F/ 10,024-,10,230 =206' @ 34.3 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 105 SPM= 475 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,820 TORQUE ON/OFF BTM 14,000/ 13,000 PICK UP WT 238,000 SLACK OFF WT 164,000 ROT WT 183,000 NO SLIDES NO MUD LOSS	
								PUMPING 5 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' MUD WT 8.8 VIS 33, NOV-CONVENTIONAL; SWACO ON LINE ANN PRESS 10,113 825 PSI (10.8) 15-20' FLARE	

Operation Summary Report

 Well: MORGAN STATE 921-36O4CS YELLOW
 Spud Date: 6/24/2012

 Project: UTAH-UINTAH
 Site: MORGAN STATE 921-36O PAD
 Rig Name No: H&P 298/298, CAPSTAR 310/310

 Event: DRILLING
 Start Date: 6/5/2012
 End Date: 8/12/2012

Event: DRILLIN	G		Start Date	e: 6/5/201	2			End Date: 8/12/2012	
Active Datum: R	RKB @5,037.00usft (ab	ove Mean S	ea	UWI: SV	V/SE/0/9	/S/21/E/36	/0/0/26/PM/S/119	38/E/0/2163/0/0	
Level)	•								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
	6:00 - 14:00	8.00	DRLPRO	02	D	P '	(using	DRILL/ SURVEY/ F/ 10,230-,10,545 =315' @ 34.3 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 90 PUMPS 105 SPM= 475 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,820 TORQUE ON/OFF BTM 14,000/ 13,000 PICK UP WT 238,000 SLACK OFF WT 164,000 ROT WT 183,000 NO SLIDES NO MUD LOSS	
								PUMPING 5 BBL SWEEPS , W/ CAL CARBONATE, ANCO FIBER, MAXI SEAL EVERY 100' MUD WT 8.8 VIS 36 NOV-CONVENTIONAL; SWACO OFF LINE 10,545 11.4 MUD WT	
	14:00 - 16:00	2.00	DRLPRO	05	В	Р		CIRC AND COND MUD RAISE MUD WT TO 11.6, 70 BBL MUD LOSS / BYPASS SHAKERS LCM 5%	
	16:00 - 16:30	0.50	DRLPRO	06	E	Р		PULL 2 STANDS WELL FLOWING 65, BBL GAIN TRIP TO BTM	
	16:30 - 0:00	7.50	DRLPRO	05	В			*** WELL FLOW (WATER) 20 BBL GAIN SWACO ON LINE ANN PRESSURE 375 (12.2) BTMS UP MUD CUT TO 10.7 VIS 30 / CIRC RAISE WT & VIS TO CONTROL WATER FLOW	
8/10/2012	0:00 - 1:30	1.50	DRLPRO	05	В	Р		CCH / RAISE MUD WT TO 12.2 PPG TO CONTROL WATER FLOW	
	1:30 - 4:00	2.50	DRLPRO	06	D	Р		BACK REAM OUT TO 9,130 SPOTTING 13# TIGHT @ 10,350,10,055,9,230	
	4:00 - 16:00	12.00	DRLPRO	06	D	Р		PULL 2 STDS TO 8,940,CHECK FOR FLOW/HOLE GOOD / PUMP SLUG, LAY DOWN DRILL PIPE	
	16:00 - 18:00	2.00	CSGPRO	14	В			PULL ROTATING HEAD BEARING ASSEMBLY & WEAR BUSHING X/O BAILS	
	18:00 - 0:00	6.00	CSGPRO	12	В			CTJSA RIG UP FRANKS CASING EQUIP,RUN 96 JTS TO 4,200' WASH THRU TIGHT SPOTS @ 4,050,4,090	
8/11/2012	5:30 - 7:00	5.50	CSGPRO	12	С	Р		RUN 124 JTS P-110 11.6# LTC 4.5 CASING +1 CROSSOVER LTC/ DQX / 114 JTS P-110 11.6# DQX 4.5 CASING+ RELATED TOOLS / BREAKING CIRCULATION @ SELECTED INTERVALS / LANDING CASING MANDREL IN BOWL W/100,000, @ 10,536 FOR CIRC & CEMENTING / SHOE @10,536 / FC @ 10,492/ BH MKR 9,875 / MV MKR @ 7,191 / X/0 @ 5,086 ,RD SAME CIRC CASING,CT JSA W/ BJ	
	5:30 - 7:00	1.50	CSGPRO	05	D			,	
	7:00 - 8:00	1.00	CSGPRO					RIG UP BJ TEST PUMP & LINES,DROP BOTTOM PLUG,PUMP 25 BBL WATER SPACER,START LEAD CMT 20 BBLS PUMPED @ 11.2 PPG,CEMENT SO THICK,UNABLE TO PUMP JOB / STOP CEMENT JOB,	
	8:00 - 14:30	6.50	CSGPRO	05	F	Z		SWITCH LINES TO RIG & CIRC OUT CEMENT / SOMETHING WRONG WITH BLEND ON LEAD CMT(BJ CHECKING INTO PROBLEM) BJ CHANGING OUT LEAD CEMENT, TAIL CEMENT ON LOCATION IS OKAY, CIRC WAITING ON LEAD CEMENT TO ARRIVE CMT ARRIVED ON LOC @ 12:45	

				Opera				
Well: MORGAN	I STATE 921-36O4CS	YELLOW					Spud Date: 6/2	24/2012
Project: UTAH-	UINTAH		Site: MOF	RGAN ST	ATE 921-	360 PAD		Rig Name No: H&P 298/298, CAPSTAR 310/310
vent: DRILLIN	Start Date	e: 6/5/201	2			End Date: 8/12/2012		
Active Datum: RKB @5,037.00usft (above Mean Sea			UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1198/E/0/2163/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 17:00	2.50	CSGPRO	12	E	P	Costry	TEST PUMP & LINES TO 5,300 PSI, ,DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 504 SKS LEAD CEMENT @ 12.5 PPG,(178 BBLS) (PREM LITE II + .0.25 pps CELLO FLAKE + .5 pps KOL SEAL + .05 lb/sx STATIC FREE + 6% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.2 % R-3 +0.4%bwoc FL-52 .6% FRESH WATER / (10.44 gal/sx, 1.98 yield) + 1,426 SX TAIL @ 14.3 ppg(335 BBLS) + (CLS G 50/50 POZ + 10% SALT + .005llbs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE +0.5%EC-1+ 58.9% FW / (5.94 gal/sx, 1.32 yield) WASH PUMP & LINES DROP TOP PLUG & DISPLACE W/ 162.6 BBLS H2O + ADDITIVES / PLUG DOWN @16:57 HOURS / FLOATS DID NOT HOLD / PUMP BACK FLUID RETURNED AND SHUT IN @ 17:05 @ 3,200 PSI LIFT PRESSURE @3,150 PSI BUMP PRESSURE @3,650 W/ 5 BBLS WATER SPACER TO SURFACE / TOP OF TAIL CEMENT CALCULATED @ 4,030' / RIG DOWN BJ AND WOC
	17:00 - 22:00	5.00	CSGPRO	13	Α	Z		WOC 5 HRS TO CHECK FLOATS,BLEED OFF PRESSURE.
	22:00 - 0:00	2.00	CSGPRO	14	В	Р		SET PACK OFF & LAY DOWN SETTING TOOL, X/O OUT CASING BAILS
8/12/2012	0:00 - 4:00	4.00	RDMO	14	Α	Р		NIPPLE DOWN BOP,ROTATING HEAD,ORBIT VALVES,FLOWLINE / RELEASE RIG TO MS 921-36P4BS 04:00 HRS 8/12/2012

OpenWells

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-3604CS YELLOW	Wellbore No.	OH
Well Name	MORGAN STATE 921-36O4CS	Wellbore Name	MORGAN STATE 921-3604CS
Report No.	1	Report Date	11/20/2012
Project	UTAH-UINTAH	Site	MORGAN STATE 921-360 PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/20/2012	End Date	12/14/2012
Spud Date	6/24/2012	Active Datum	RKB @5,037.00usft (above Mean Sea Level)
UWI	SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1198/E/0/2163/0/0		

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density	Gross Interv	val 7,	,277.0 (usft)-10,258.0 (us	Start Date/Time	11/20/2012	12:00AM
Surface Press		Estimate Res Press	No. of Interv	/als	58	End Date/Time	11/20/2012	12:00AM
TVD Fluid Top		Fluid Head	Total Shots		237	Net Perforation Interval		79.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot De	ensity	3.00 (shot/ft)	Final Surface Pressure		
Balance Cond	NEUTRAL					Final Press Date		

2 Intervals

2.1 Perforated Interval

Date	Formation/ CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	or management of	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201	MESAVERDE/		7,277.0	7,279.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2				A. A. C.									N	
12:00AM								44	***************************************		11111111111111111111111111111111111111			

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201	MESAVERDE/			7,289.0	7,290.0	3.00		0.360	EXP/	3.375	120.00	-		PRODUCTIO N	
12:00AM						1.1111111111111111111111111111111111111					1				
2	MESAVERDE/			7,306.0	7,308.0	3.00	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM			1												
2	MESAVERDE/			7,316.0	7,317.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	The state of the s														
11/20/201 2 12:00AM	MESAVERDE/	: : :		7,328.0	7,330.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/		·	7,470.0	7,471.0	3.00		0.260	EXP/	2 275	400.00	9707 /	00 00		:
1 1/20/201 2 12:00AM	WESAVERDE/		*	7,470.0	7,471.0	3.00		0.360	EAP/	3.375	120.00		23.00	PRODUCTIO N	
· · · · · · · · · · · · · · · · · · ·	MESAVERDE/	: 	<u> </u>	7,481.0	7,482.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2 12:00AM				7,401.0	7,402.0	0.00		0.000		0.070	120.00		25.00	N	
11/20/201 2 12:00AM	MESAVERDE/			7,503.0	7,505.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2	MESAVERDE/			7,532.0	7,534.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM		}		7 000 0			PLES AND ASSESSMENT OF THE SECOND SEC							1	
11/20/201 2 12:00AM	MESAVERDE/	Total and the second		7,606.0	7,608.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2	MESAVERDE/		**************************************	7,680.0	7,681.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 11/20/201 2	MESAVERDE/			7,719.0	7,721.0	3.00		0.360	EXP/	3.375	120.00	710/00/01/19 7117 71 71 71 71 71 71 71 71 71 71 71 7	23.00	PRODUCTIO N	
12:00AM			:							i .			1		
11/20/201 2	MESAVERDE/	: !		7,765.0	7,766.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM									!				; :	-	
2	MESAVERDE/		1	7,774.0	7,775.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM				-					1				; 		
11/20/201 2 12:00AM	MESAVERDE/		111	7,783.0	7,784.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ D Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2	MESAVERDE/	!		7,847.0	7,849.0	3.00	-	0.360	EXP/	3.375	120.00			PRODUCTIO N	
12:00AM 11/20/201 2 12:00AM	MESAVERDE/			8,072.0	8,074.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
***************************************	MESAVERDE/		E	8,235.0	8,237.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	***************************************
11/20/201 2	MESAVERDE/	American de American de Companyo de Compan	4	8,297.0	8,299.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 11/20/201 2	MESAVERDE/	I C	-	8,318.0	8,320.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	10
12:00AM 11/20/201 2	MESAVERDE/			8,379.0	8,380.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 11/20/201 2	MESAVERDE/		1	8,412.0	8,413.0	3.00	вимприрантиностичностичностичности	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	THE STATE OF STATE
2	MESAVERDE/		A A A A A A A A A A A A A A A A A A A	8,449.0	8,450.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	in the state of th
2	MESAVERDE/			8,461.0	8,462.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	Wilderly at the party of the pa
12:00AM 11/20/201 2 12:00AM	MESAVERDE/	· · · · · · · · · · · · · · · · · · ·		8,475.0	8,476.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/		-	8,489.0	8,490.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
APT-V	MESAVERDE/	\$		8,499.0	8,500.0	3.00	-	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	586 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 -
11/20/201 2	MESAVERDE/		- Andrew State of the Control of the	8,555.0	8,556.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	:
12:00AM 11/20/201 2 12:00AM	MESAVERDE/	# 1		8,595.0	8,596.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

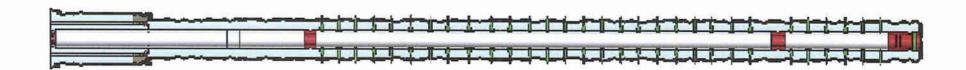
Date	Formation/	CCL@ (usft)	CCL-T	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete	Carr Type /Stage No	Carr Size	Phasing (°)	Charge Desc /Charge Manufacturer	Charge	Reason	Misrun
	Reseivoii	Lusity	(usft)	(usir):	(usi)	(shot/ft)	Add, Silot	r (in)		(in)	V	wanuracturer	Weight (gram)		
11/20/201 2	MESAVERDE/			8,624.0	8,625.0			0.360	EXP/	3.375	120.00			PRODUCTIO N	
12:00AM								200000000000000000000000000000000000000			4.0			•	
2	MESAVERDE/	e a constante de proposition de la constante d		8,644.0	8,645.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM			-								The second secon	T-11/4			
2	MESAVERDE/			8,675.0	8,676.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MEDAVED DE	-) i de la companya de	0 704 0				0.000	EVE		400.00				
11/20/201 2 12:00AM	MESAVERDE/			8,721.0	8,722.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	
.H	MESAVERDE/			8,732.0	8,733.0	3.00		0.360	FYP/	3.375	120.00	Balter recovery and the second	23.00	PRODUCTIO	
2 12:00AM				5,. 52.5	0,100.0	0.00		0.000		0.070	720.00		25.00	N	
	MESAVERDE/			8,753.0	8,755.0	3.00		0.360	EXP/	3.375	120.00	4,000	23.00	PRODUCTIO	
2 12:00AM										13 STO ADDRESS - ADDRES				N	
11/20/201	MESAVERDE/			8,800.0	8,801.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM		-							WIII						
2	MESAVERDE/		6	8,861.0	8,862.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	ALCO AVENDE			0.005.0	0.000.0	0.00		0.000	-va:	0.075	400.00				
2	MESAVERDE/		**	8,895.0	8,896.0	3.00		0.360	EAP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM				-										-	
11/20/201 2	MESAVERDE/		THE RESERVE AND ADDRESS OF THE PERSON OF THE	8,918.0	8,919.0	3.00		0.360	EXP/	3.375	120.00	THE RESIDENCE OF THE PROPERTY	23.00	PRODUCTIO N	
12:00AM				on one of the other of the othe									The state of the s	ADDING THE RESIDENCE OF	
11/20/201 2	MESAVERDE/	4		8,943.0	8,944.0	3.00		0.360	EXP/	3.375	120.00	798 MILLIO TO TO THE STREET TO SEE BY POPULATION IN T. A AGOST (1), A GOOD REPORT OF THE STREET TO SEE STREET TO S	23.00	PRODUCTIO N	
12:00AM							di francesdi							Manual Colonial Colon	
11/20/201 2	MESAVERDE/		-	8,953.0	8,954.0	3.00	1	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM			1												
2	MESAVERDE/			8,961.0	8,962.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM															
11/20/201 2 12:00AM	MESAVERDE/		e production of the control of the c	8,983.0	8,984.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD_Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No.	Carr Size (in)	Phasing ()	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2	MESAVERDE/			9,073.0	9,075.0				EXP/	3.375	120.00	udan dan salah salah darih		PRODUCTIO N	
12:00AM	-								2						
11/20/201	MESAVERDE/			9,176.0	9,178.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM				1		TA SPORTS								IN	
11/20/201 2	MESAVERDE/			9,193.0	9,195.0	3.00		0.360	EXP/	3.375	120.00	417	23.00	PRODUCTIO N	
12:00AM												THE PROPERTY OF THE PROPERTY O			
2	MESAVERDE/	and the state of t	B	9,247.0	9,249.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10.037.0	10,038.0	3.00		0.360	EXP/	3.375	120.00		33 00	PRODUCTIO	
2 12:00AM	WEGAVERDE	-		10,037.0	10,036.0	3.00		0.360	EAP)	3.373	120.00		23.00	N	
2	MESAVERDE/			10,047.0	10,048.0	3.00	***************************************	0.360	EXP/	3.375	120.00	NAME AND ADDRESS OF THE PARTY O	23.00	PRODUCTIO N	
12:00AM		Į	-		w	3				ļ			_		
11/20/201 2 12:00AM	MESAVERDE/	Commission of Grant American	Control of the contro	10,061.0	10,063.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/ 20/201 2	MESAVERDE/			10,087.0	10,089.0	3.00	111111111111111111111111111111111111111	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10 100 0	40 400 0	2.00		0.000	EVD	2 275	420.00	Addition of the Children of the Control of the Cont	20.00	BBABUATIA	
11/20/201 2 12:00AM	WESAVERDE/			10,106.0	10,108.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			10,140.0	10,141.0	3.00		0.360	EXP/	3.375	120.00	and the state of t	23.00	PRODUCTIO N	AND
12:00AM									**************************************						
2	MESAVERDE/			10,163.0	10,164.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/		-	40 204 0	40 202 0	200		0.000	rvn/	2 075	400.00		00.00	DDODUGTIO	
11/20/201 2 12:00AM	MESAVERDE/			10,201.0	10,202.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			10,212.0	10,213.0	3.00		0.360	D EXP/	3.375	120.00	888 14 14 15 5 14 14 15 15	23.00	PRODUCTIO	
2 12:00AM				and the same of th	- American de la company					40 to 4000000 atm # 4000000			Management of the control	N	
11/20/201 2	MESAVERDE/	***************************************	Sector Attractive delignation and annual to the	10,222.0	10,223.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM		į						İ							

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add, Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	MESAVERDE/			10,256.0	10,258.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



		TE A			Opera	ition S	Summa	ry Report				
Well: MORGAN	STATE 9	21-36O4C	SYELLOW		001000000000000000000000000000000000000	01810 K0900 18 <u>844.0</u>		Spud Date: 6/2	24/2012			
Project: UTAH-U						ATE 921	-360 PAE)	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3			
Event: COMPLE	ETION			Start Da	te: 11/20/2	2012	Ţ		End Date: 12/14/2012			
Active Datum: R	RKB @5,0	37.00usft (a	above Mean Se	ea	UWI: S	W/SE/0/9	/S/21/E/36	6/0/0/26/PM/S/11	198/E/0/2163/0/0			
Date	[생활, 40일 시간 및	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation .			
6/24/2012		-			-							
6/25/2012	11.00		0.75	ED 4 0	00	1	Б		FILL OUDEACE OCO. MIDU DAO OLIICK TEST			
12/3/2012	11:00	- 11:45	0.75	FRAC	33	С	Р		FILL SURFACE CSG. MIRU B&C QUICK TEST. 1ST PSI TEST T/ 9000 PSI. HELD FOR 15 MIN LOST 28 PSI.			

Р

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NO COMMUNICATION OR MIGRATION WITH

BLEED OFF PSI. MOVE T/ NEXT WELL.SWIFN

PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, 90 DEG PHASING, RIH PERF AS PER PERF

HSAFETY MEETING: WL BOPES

DESIGN. POOH. SWIFW HSM, PRE JOB INSTRUCTIONS

SURFACE CSG

7:00 - 7:15

7:15 - 11:00

6:45 - 7:00

0.25

3.75

0.25

FRAC

FRAC

FRAC

48

37

48

12/4/2012

12/6/2012

						KIES RE Summa	GION ry Report	
Well: MORGAN	STATE 921-36O4CS	YELLOW	<u> </u>			<u>15. painga asas</u>	Spud Date: 6/24	W2012
Project: UTAH-	UINTAH		Site: MOI	RGAN ST	ATE 921	-360 PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPL	ETION		Start Date	e: 11/20/2	012			End Date: 12/14/2012
Active Datum: I Level)	RKB @5,037.00usft (al	oove Mean Se	a	UWI: SV	V/SE/0/9	/S/21/E/36	/0/0/26/PM/S/119	98/E/0/2163/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:30	10.50	FRAC	36	В	P		PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 20/40 TLC MESH SAND IN STAGE #1-2 & 30/50 MESH IN REMAINING STAGES W/ SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND
								CHEMICAL VOLUME PUM'D FRAC STG #1] WHP=1,581#, BRK DN PERFS=3,488#, @=4.7 BPM, INJ RT=51.5, INJ PSI=5,790#, INITIAL ISIP=3,844#, INITIAL FG=.82, FINAL ISIP=3,506#, FINAL FG=78., AVERAGE RATE=50.2, AVERAGE PRESSURE=6,102#, MAX RATE=51.7, MAX PRESSURE=8,179#, NET
								PRESSURE INCREASE=-338#, 21/21 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #2) P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=10,118', PERF LOWER MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #2] WHP=2,630#, BRK DN PERFS=3,678#, @=4.9 BPM, INJ RT=51, INJ PSI=5,585#, INITIAL ISIP=2,951#, INITIAL FG=.73, FINAL ISIP=3,552#, FINAL FG=.79, AVERAGE RATE=49.9, AVERAGE PRESSURE=5,866#, MAX RATE=51.1, MAX PRESSURE=8,812#, NET PRESSURE INCREASE=601#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,279', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.
								FRAC STG #3] WHP=1,853#, BRK DN PERFS=3,378#, @=4.6 BPM, INJ RT=47.5, INJ PSI=6,110#, INITIAL ISIP=2,439#, INITIAL FG=.70, FINAL ISIP=2,794#, FINAL FG=.74, AVERAGE RATE=50.9, AVERAGE PRESSURE=5,642#, MAX RATE=52, MAX PRESSURE=6,232#, NET PRESSURE INCREASE=355#, 16/24 76% CALC PERFS OPEN. X OVER TO WIRE LINE SWIFN.

Operation Summary Report

Well: MORGAN S	STATE 921-36O4CS	YELLOW					Spud Date: 6/2	4/2012
Project: UTAH-U	INTAH		Site: MOF	RGAN ST	ATE 921	-360 PAE		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	TION		Start Date	e: 11/20/2	2012			End Date: 12/14/2012
Active Datum: Rh	KB @5,037.00usft (ab	ove Mean S	ea	UWI: SV	N/SE/0/9	/S/21/E/36	6/0/0/26/PM/S/11	98/E/0/2163/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/7/2012	7:00 -	Process State St. Commission Comm	FRAC	36	В	Р		[STG#4] PERF & FRAC BY DESIGN.
								[STG#5] PERF & FRAC BY DESIGN.
								[STG#6] PERF & FRAC BY DESIGN.
								[STG#7] PERF & FRAC BY DESIGN.
								[STG#8] PERF & FRAC BY DESIGN.
12/8/2012	6:45 - 7:00	0.25	FRAC	48		Р		[STG#9] PERF BY DESIGN. HSM, RIGGING DOWN
	7:00 - 13:00	6.00	FRAC	36	, B	Р		FRAC STG #9] WHP=1,100#, BRK DN PERFS=2,399#, @=4.2 BPM, INJ RT=52.4, INJ PSI=3,380#, INITIAL ISIP=1,599#, INITIAL FG=.65, FINAL ISIP=1,957#, FINAL FG=.70, AVERAGE RATE=52.1, AVERAGE PRESSURE=3,446#, MAX RATE=52.7, MAX PRESSURE=4,256#, NET PRESSURE INCREASE=#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #10] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,360', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #10] WHP=1,685#, BRK DN PERFS=2,369#, @=4.1 BPM, INJ RT=52.1, INJ PSI=4,314#, INITIAL ISIP=1,571#, INITIAL FG=.65, FINAL ISIP=1,990#, FINAL FG=.71, AVERAGE RATE=52.1, AVERAGE PRESSURE=3,907#, MAX RATE=52.4, MAX PRESSURE=5,183#, NET PRESSURE INCREASE=419#, 22/24 92% CALC PERFS OPEN. X OVER TO WIRE LINE
								P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILI @=7,227' TOTAL FLUID PUMP'D=13,276 BBLS
			DRLOUT			Р		TOTAL SAND PUMP'D=272,416# HSM-JSA

Praela Cripo				Opera	ition (Summa	ary Report	
Well: MORGAN	I STATE 921-36O4CS	YELLOW	<u>Middle Roost</u> filles vins	PLONIAND APPROPRIE	TOTAL STREET	Legacia) Protection	Spud Date: 6/2	4/2012
Project: UTAH-I	UINTAH		Site: MOI	RGAN ST	ATE 92	1-36O PAI)	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	ETION	-	Start Date	e: 11/20/2	2012			End Date: 12/14/2012
Active Datum: F	RKB @5,037.00usft (a	ea	UWI: SI	N/SE/0/9	9/S/21/E/3	6/0/0/26/PM/S/11	98/E/0/2163/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 15:00	7.75	DRLOUT	44	С			RDMO 921-3601CS, MIRU, NDWH, NUBOP, PU 3 7/8" BIT & POBS W/ XN SN, RIH W/ 227 JTS 2 3/8" P-110 TBG TAG FILL @ 7,717', RU PWR SWVL, BRK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.
								C/O 10' SAND TAG PLUG #1 @ 7,227', DRL HAL 8K CBP IN 10 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 7,340'.
								C/O 20' SAND TAG PLUG #2 @ 7,360', DRL HAL 8K CBP IN 9 MIN, 300 PSI INC, FCP 50 PSI, RIH TAG FILL @ 7,608'.
12/14/2012	7:00 - 7:15	0.25	DRLOUT	48		Р		C/O 30' SAND TAG PLUG #3 @ 7,638', DRL HAL 8K CBP IN 11 MIN, 300 PSI INC, FCP 100 PSI, CIRC CLEAN, SWI, WINTERIZE EQUIP, SDFN. HSM-JSA

Well: MORGAN STATE 921-3604CS YELLOW	Spud D	Date: 6/24/2012
Project: UTAH-UINTAH	Site: MORGAN STATE 921-360 PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 11/20/2012	End Date: 12/14/2012
Active Datum: RKB @5,037.00usft (above Mean S	ea UWI: SW/SE/0/9/S/21/E/36/0/0/26/F	PM/S/1198/E/0/2163/0/0
Level)		
Date Time Duration Start-End (hr)		From Operation sft)
7:15 - 15:00 7.75	DRLOUT 44 C P	SICP 950 PSI, OPEN WELL, PU TBG RIH TAG FILL @ 7,869'.
		C/O 10' SAND TAG PLUG #4 @ 7,879', DRL HAL 8K CBP IN 12 MIN, 700 PSI INC, FCP 150 PSI, RIH TAG FILL @ 8,330'.
		C/O 20' SAND TAG PLUG #5 @ 8,350', DRL HAL 8K CBP IN 8 MIN, 350 PSI INC, FCP 250 PSI, RIH TAG FILL@ 8,541'.
		C/O 25' SAND TAG PLUG #6 @ 8,566', DRL HAL 8K CBP IN 6 MIN, 400 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,755'
		C/O 30' SAND TAG PLUG #7 @ 8,785', DRL HAL 8K CBP IN 4 MIN, 0 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,994'.
		C/O 20' SAND TAG PLUG #8 @ 9,014', DRL HAL 8K CBP IN 5 MIN, 600 PSI INC, FCP 500 PSI, RIH TAG FILL @ 9,259'.
		C/O 20' SAND TAG PLUG #9 @ 9,279', DRL HAL 8K CBP IN 3 MIN, 600 PSI INC, FCP 600 PSI, RIH TAG FILL @ 10,108'.
		C/O 30' SAND TAG PLUG #10 @ 10,118', DRL HAL 8K CBP IN 5 MIN, 300 PSI INC, FCP 700 PSI, RIH TAG FILL @ 10,272'.
		C/O 80' SAND TO PBTD @ 10,352', CIRC CLEAN, RD PWR SWVL, POOH LD 11 JTS TBG, LAND TBG W/ 315 JTS 2 3/8" P-110 EOT @ 10,004.38', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 2,100 PSI, PRESS TEST FLOWLINE BETWEEN HAL 9,000 & WELLHEAD TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC, RDMO, MOVE RIG & EQUIP TO NBU 922-30A, SDFWE.
		KB-26' HANGER83' 315 JTS 2 3/8" P-110-9,975.35' POBS W/ XN SN-2.20' EOT @ 10,004.38'
		341 JTS DEL 315 JTS USED 26 JTS RET
		TWTR=13,586 BBLS TWR=3,572 BBLS TWLTR=10,014 BBLS

Site: UINTAH MORGAN STATE 921-360 PAD Well: MORGAN STATE 921-3604CS

Wellbore: MORGAN STATE 921-3604CS

Section: SHL:

0.00

Design: MORGAN STATE 921-3604CS (wp01)

Latitude: 39.988732 Longitude: -109.497696 GL: 5011.00

0.00

145254

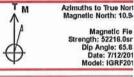
KB: 26' RKB + 5011' GL @ 5037.00ft (H&P 298)

MDPath 4631.26 5231.26 7232.27 TVDPath 4526.00 5126.00 7127.00 9350.00 9414.00 9455.29 9519.29 9838.00

Formation TOP OF CYLINDER MESAVERDE SEGO CASTLEGATE **BLACKHAWK**

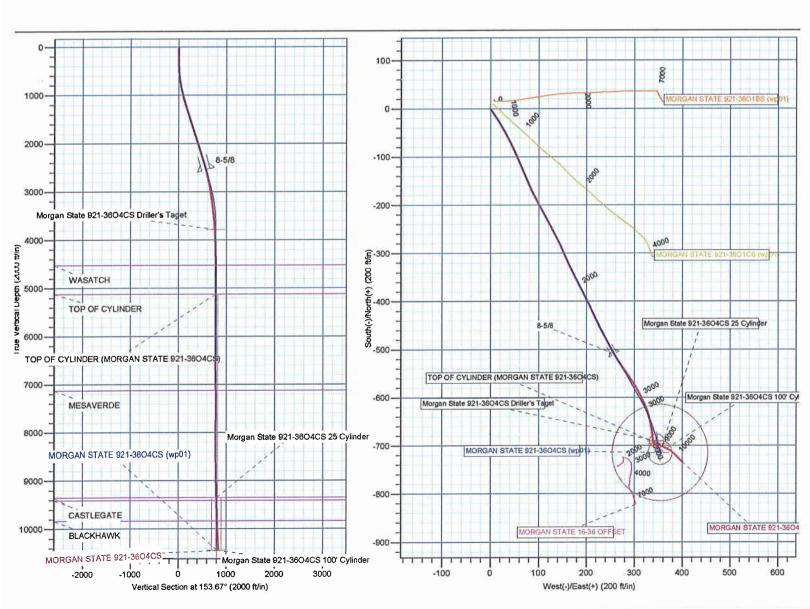
WELL DETAILS: MORGAN STATE 921-3604CS							
rthing	Ground Level: Easting	5011.00 Latittude	Longitude	Slot			
487.10	2061227.02	39.988732	-109.497696				

CASING DETAILS							
TVD	MD	Name	Size				
2541.62	2624.01	8-5/8	8-5/8				



			DESIGN T	ARGET DETAILS				
ame lorgan State 921-3604CS Driller's Taget OP OF CYLINDER (MORGAN STATE 921-360	TVD 3782.03 04CS) 5126.00 9350.00	+N/-S -690.84 -695.83 -714.57	+E/-W 346.75 348.19 353.67	Northing 14524802.21 14524797.24 14524778.59	Easting 2061585.37 2061586.89 2061592.59	Latitude 39.986835 39.986821 39.986770	Longitude -109.496458 -109.496453 -109.496434	Shape Circle (Radius: 15.00) Point Circle (Radius: 25.00)
lorgan State 921-3604CS 25 Cylinder lorgan State 921-3604CS 100' Cylinder	10438.00	-714.57	353.57	14524778.59	2061592.59	39.986770	-109,496434	Circle (Radius: 100.00

				SECTION DE	TAILS				
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
2625.00	15.65	149.72	2542.57	-510.17	258.06	0.00	0.00	571.71	
2979.00	15.65	149.72	2883.45	-592.64	306.21	0.00	0.00	666.97	
3617.78	2.87	168.88	3512.59	-686.79	345.96	2.06	166.43	768.99	
3782.03	0.00	168.88	3676.78	-690.83	346.75	1.75	180.00	772.96	
3852.16	0.21	163.97	3746.91	-690.96	346.79	0.30	163.97	773.09	
10543.30	0.21	163.97	10438.00	-714.57	353.57	0.00	0.00	797.26	
	2979.00 3617.78 3782.03 3852.16	2625.00 15.65 2979.00 15.65 3617.78 2.87 3782.03 0.00 3852.16 0.21	2625.00 15.65 149.72 2979.00 15.65 149.72 3617.78 2.87 168.88 3782.03 0.00 168.88 3852.16 0.21 163.97	2625.00 15.65 149.72 2542.57 2979.00 15.65 149.72 2883.45 3617.78 2.87 168.88 3512.59 3782.03 0.00 168.88 3676.78 3852.16 0.21 163.97 3746.91	MD Inc Azi TVD +N/-S 2625.00 15.65 149.72 2542.57 -510.17 2979.00 15.65 149.72 2883.45 -592.64 3617.78 2.87 168.88 3512.59 -686.79 3782.03 0.00 168.88 3676.78 -690.83 3852.16 0.21 163.97 3746.91 -690.96	2625.00 15.65 149.72 2542.57 -510.17 258.06 2979.00 15.65 149.72 2883.45 -592.64 306.21 3617.78 2.87 168.88 3512.59 -686.79 345.96 3782.03 0.00 168.88 3676.78 -690.83 346.75 3852.16 0.21 163.97 3746.91 -690.96 346.79	MD Inc Azi TVD +N/-S +E/-W Dleg 2625.00 15.65 149.72 2542.57 -510.17 258.06 0.00 2979.00 15.65 149.72 2883.45 -592.64 306.21 0.00 3617.78 2.87 168.88 3512.59 -686.79 345.96 2.06 3782.03 0.00 168.88 3676.78 -690.83 346.75 1.75 3852.16 0.21 163.97 3746.91 -690.96 346.79 0.30	MD Inc Azi TVD +N/-S +E/-W Dleg TFace 2625.00 15.65 149.72 2542.57 -510.17 258.06 0.00 0.00 2979.00 15.65 149.72 2883.45 -592.64 306.21 0.00 0.00 3617.78 2.87 168.88 3512.59 -686.79 345.96 2.06 166.43 3782.03 0.00 168.88 3676.78 -690.83 346.75 1.75 180.00 3852.16 0.21 163.97 3746.91 -690.96 346.79 0.30 163.97	MD Inc Azi TVD +N/-S +E/-W Dleg TFace VSect 2625.00 15.65 149.72 2542.57 -510.17 258.06 0.00 0.00 571.71 2979.00 15.65 149.72 2883.45 -592.64 306.21 0.00 0.00 666.97 3617.78 2.87 168.88 3512.59 -686.79 345.96 2.06 166.43 768.99 3782.03 0.00 168.88 3676.78 -690.83 346.75 1.75 180.00 772.96 3852.16 0.21 163.97 3746.91 -690.96 346.79 0.30 163.97 773.09



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36O PAD MORGAN STATE 921-36O4CS

MORGAN STATE 921-3604CS

Design: MORGAN STATE 921-36O4CS

Standard Survey Report

05 November, 2012

Survey Report

Company: US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N Project: UINTAH_MORGAN STATE 921-360 PAD Site:

Well: MORGAN STATE 921-36O4CS MORGAN STATE 921-36O4CS Wellbore: Design: MORGAN STATE 921-36O4CS

Local Co-ordinate Reference:

Well MORGAN STATE 921-3604CS 26' RKB + 5011' GL @ 5037.00ft (H&P 298) TVD Reference: MD Reference: North Reference:

26' RKB + 5011' GL @ 5037.00ft (H&P 298) True

Survey Calculation Method: Minimum Curvature

Database: edmp

UTAH - UTM (feet), NAD27, Zone 12N **Project**

Map System: Geo Datum:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS)

Zone 12N (114 W to 108 W) Map Zone:

System Datum:

Mean Sea Level

UINTAH_MORGAN STATE 921-360 PAD Site

Site Position: From:

Lat/Long

Northing: 14,525,505.80 usft 2,061,233.99 usft

Latitude: Longitude:

0.00

39.988783 -109.497670

151.41

0.00 ft Slot Radius: 13-3/16 " **Grid Convergence:** 0.97 9 Position Uncertainty:

Well MORGAN STATE 921-3604CS

Well Position

+N/-S 0.00 ft +E/-W 0.00 ft

Northing: Easting:

Easting:

14,525,487.10 usft 2,061,227.02 usft Latitude: Longitude:

39.988732 -109.497696

5,011.00 ft **Ground Level:** 0.00 ft Wellhead Elevation: **Position Uncertainty**

MORGAN STATE 921-3604CS Wellbore Declination Dip Angle Field Strength **Model Name** Sample Date Magnetics (nT) (°) (°) **IGRF2010** 10.93 65.83 52,216 7/12/2012

MORGAN STATE 921-3604CS Design Audit Notes: Tie On Depth: ACTUAL 17.00 Version: Phase: 1.0 +N/-S +E/-W Direction Vertical Section: Depth From (TVD) (ft) (ft) (°) (ft)

0.00

0.00

Survey Program 11/5/2012 From To Survey (Wellbore) Description (ft) (ft) **Tool Name** 248.00 2,625.00 Survey #1 (MORGAN STATE 921-36O4CS MWD MWD - STANDARD MWD MWD - STANDARD 2,652.00 10,545.00 Survey #2 (MORGAN STATE 921-36O4CS

Survey Vertical Vertical Dogleg Build Turn Measured Section Depth +N/-S +E/-W Rate Rate Rate Depth Inclination Azimuth (ft) (°/100usft) (°/100usft) (°/100usft) (ft) (ft) (ft) (ft) (°) (°) 0.00 0.00 0.00 0.00 17.00 0.00 0.00 17.00 0.00 0.00 0.00 248.00 0.30 303.54 248.00 0.33 -0.50-0.530.13 0.130.84 0.25 -144.88 339.00 0.53 171.70 339.00 0.05 -0.64-0.35429.00 146.74 428.98 -1.52 0.18 1.42 1.44 1.37 -27.731.76 522.00 3.69 142.60 521.87 -5.09 2.78 5.80 2.08 2.08 -4.45 3.80 617.00 6 16 146.21 616.51 -11.76 7.47 13.90 2.62 2.60 148.58 709.73 -21.90 13.91 25.88 2.54 2.52 2.52 711.00 8.53 0.38 148,93 801.37 -35.44 22.12 41.70 2.74 2.74 804.00 11.08 151.39 895.25 -52.83 32 05 61.73 2.08 2.01 2.56 13 01 900.00 154.91 985.65 -72.32 41.89 83,55 1.52 1.24 3.78 14.16 993.00

Survey Report

Company:

US ROCKIES REGION PLANNING

Project: Site:

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-360 PAD

Well: Wellbore: Design:

MORGAN STATE 921-3604CS MORGAN STATE 921-3604CS

MORGAN STATE 921-3604CS

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36O4CS

26' RKB + 5011' GL @ 5037.00ft (H&P 298) 26' RKB + 5011' GL @ 5037.00ft (H&P 298)

True

Minimum Curvature

edmp.

Measured		18 an 18 18 41 an 1	Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
1,087.00	15.65	156.40	1,076.48	-94.36	51.84	107.66	1.64	1.59	1.59
1,183.00	16.97	156.49	1,168.62	-119.07	62.62	134.51	1.38	1.38	0.09
1,279.00	17.41	156.05	1,260.33	-145.04	74.03	162.78	0.48	0.46	-0.46
1,372.00	17.85	155.61	1,348.96	-170.74	85.57	190.87	0.49	0.47	-0.47
1,466.00	17.94	151.22	1,438.42	-196.55	98.49	219.71	1.44	0.10	-4.67
1,558.00	18.03	151.22	1,525.92	-221.45	112.16	248.12	0.10	0.10	0.00
1,651.00	17.94	151.66	1,614.38	-246.67	125.89	276.83	0.18	-0.10	0.47
1,745.00	18.03	153.01	1,703.79	-272.37	139.37	305.85	0.45	0.10	1.44
1,837.00	18.64	156.40	1,791.12	-298.53	151.72	334.73	1.34	0.66	3.68
1,932.00	18.99	154.12	1,881.04	-326.35	164.54	365.30	0.86	0.37	-2.40
2,027.00	17.32	152.80	1,971.31	-352.84	177.75	394.88	1.81	-1.76	-1.39
2,121.00	16.97	152.71	2,061.13	-377.47	190.44	422.58	0.37	-0.37	-0.10
2,214.00	17.50	154.47	2,149.96	-402.15	202.69	450.11	0.80	0.57	1.89
2,308.00	18.23	153.62	2,239.42	- 428.08	215.31	478.92	0.82	0.78	-0.90
2,403.00	17.59	153.15	2,329.82	-454.20	228.40	508.11	0.69	-0.67	-0.49
2,496.00	16,71	152.89	2,418.68	-478.64	240.84	535.53	0.95	-0.95	-0.28
2,625.00	15.65	149.72	2,542.57	-510.17	258.06	571.46	1.07	-0.82	-2.46
LAST SDI SU	JRVEY - TIE ON								
2,652.00	15.67	148.06	2,568.57	-516.41	261.83	578.74	1.66	0.07	-6.15
FIRST MWD	SURVEY								
2,747.00	13.69	145.84	2,660.47	-536.60	274.93	602.74	2.17	-2.08	-2.34
2,841.00	11.63	145.21	2,752.18	-553.59	286.58	623.23	2.20	-2.19	-0.67
2,936.00	10.00	146.84	2,845.49	-568.36	296.56	640.97	1.75	-1.72	1.72
3,030.00	9.44	149.09	2,938.14	-581.81	304.98	656.81	0.72	-0.60	2.39
3,125.00	9.00	153.21	3,031.91	- 595.13	312.33	672.02	0.83	-0.46	4.34
3,219.00	8.25	155.96	3,124.85	- 607.85	318.39	686.09	0.91	-0.80	2.93
3,314.00	7.50	155.71	3,218.95	-619.72	323.72	699.07	0.79	-0.79	-0.26
3,408.00	6.94	164.46	3,312.21	-630.79	327.77	710.72	1.31	-0.60	9.31
3,503.00	6.25	163.96	3,406.58	-641.29	330.73	721.36	0.73	-0.73	-0.53
3,597.00	5.88	167.46	3,500.05	- 650.90	333.19	730.98	0.56	-0.39	3.72
3,692.00	5.31	170.09	3,594.60	- 659.98	335.01	739.82	0.66	-0.60	2.77
3,786.00	4.88	171.84	3,688.23	-668.23	336.32	747.69	0.49	-0.46	1.86
3,881.00	4.13	172.59	3,782.93	-675.62	337.34	754.67	0.79	-0.79	0.79
3,975.00	3.69	176.09	3,876.72	-681.99	337.98	760.57	0.53	-0.47	3.72
4,069.00	3.19	176.96	3,970.55	-687.62	338.32	765.68	0.53	-0.53	0.93
4,164.00	1.69	176.21	4,065.46	-691.66	338.56	769.34	1.58	-1.58	-0.79
4,258.00	1.13	117.21	4,159.43	-693.47	339.47	771.36	1.57	-0.60	-62.77
4,352.00	1.38	110.21	4,253.41	-694.28	341.36	772.98	0.31	0.27	-7.45
4,447.00	1.50	127.21	4,348.38	-695.43	343.42	774.97	0.47	0.13	17.89
4,541.00	0.38	146.96	4,442.37	-696.44	344.57	776.41	1.22	-1.19	21.01
4,636.00	0.56	133.21	4,537.36	-697.02	345.08	777.16	0.22	0.19	-14.47
4,825.00	0.75	148.71	4,726.35	-698.71	346.40	779.28	0.14	0.10	8.20
4,919.00	0.88	136.66	4,820.34	-699.76	347.21	780.59	0,23	0.14	-12.82

Survey Report

Company:

US ROCKIES REGION PLANNING

Project: Site:

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-360 PAD

Well: Wellbore: MORGAN STATE 921-3604CS MORGAN STATE 921-3604CS

Design:

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

True Minimum Curvature

Well MORGAN STATE 921-3604CS

26' RKB + 5011' GL @ 5037.00ft (H&P 298)

26' RKB + 5011' GL @ 5037.00ft (H&P 298)

edmp

Database: MORGAN STATE 921-3604CS

									Nadelija (16. septembri) Nadelija (16. septembri)
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
5,014.00	0.88	140.84	4,915.33	-700.85	348.18	782.01	0.07	0.00	4.40
5,108.00	0.50	94.96	5,009.32	-701.45	349.04	782.95	0.68	-0.40	-48.81
5,202.00	0.88	358.84	5,103.32	-700.76	349.43	782.53	1.12	0.40	-102.26
5,297.00	0.69	9.33	5,198.31	-699.47	349.51	781.43	0.25	-0.20	11.04
5,391.00	0.63	43.46	5,292.30	-698.54	349.96	780.83	0.42	-0.06	36.31
5,486.00	0.63	332.09	5,387.30	-697.69	350.07	780.15	0.77	0.00	-75.13
5,580.00	1.00	278.08	5,481.29	-697.12	349.02	779.14	0.86	0.39	-57.46
5,675.00	1.06	270.46	5,576.28	-697.00	347.32	778.22	0.16	0.06	-8.02
5,769.00	0.81	260.83	5,670.26	-697.10	345.79	777.57	0.31	-0.27	-10.24
5,864.00	0.63	242.59	5,765.26	-697.45	344.67	777.34	0.30	-0.19	-19.20
5,958.00	0.56	220.34	5,859.25	-698.03	343.91	777.49	0.25	-0.07	-23.67
6,053.00	0.69	199.09	5,954.25	-698.93	343.42	778.05	0.28	0.14	-22.37
6,147.00	0.38	241.21	6,048.24	-699.61	342.97	778.43	0.51	-0.33	44.81
6,242.00	0.69	299.34	6,143.24	-699.48	342.19	777.95	0.62	0.33	61.19
6,336.00	0.44	320.83	6,237.23	-698.93	341.47	777.11	0.34	-0.27	22.86
6,431.00	0.19	329.71	6,332.23	-698.51	341.16	776.59	0.27	-0.26	9.35
6,525.00	0.06	24.96	6,426,23	-698.33	341.10	776.41	0.17	-0.14	58.78
6,620.00	0.25	95.09	6,521.23	-698.30	341.33	776.50	0.25	0.20	73.82
6,715.00	0.19	104.21	6,616.23	-698.36	341.69	776.72	0.07	-0.06	9.60
6,809.00	0.31	123.71	6,710.23	-698.54	342.05	777.05	0.15	0.13	20.74
6,904.00	0.63	109.46	6,805.23	-698.86	342.76	777.66	0.36	0.34	-15.00
6,998.00	0.75	105.71	6,899.22	-699.19	343.84	778.48	0.14	0.13	-3.99
7,093.00	0.81	117.46	6,994.21	-699.67	345.03	779.47	0.18	0.06	12.37
7,187.00	1.00	121.84	7,088.20	-700.41	346.32	780.73	0.21	0.20	4.66
7,281.00	1.06	137.21	7,182.18	-701.48	347.61	782.29	0.30	0.06	16.35
7,376.00	0.50	131.59	7,277.18	-702.40	348.51	783.53	0.59	-0.59	-5.92
7,470.00	0.56	298.96	7,371.17	-702.45	348.42	783.53	1.12	0.06	178.05
7,565.00	1.25	312.21	7,466.16	-701.53	347.24	782.16	0.75	0.73	13.95
7,659.00	0.75	316.46	7,560.15	-700.40	346.06	780.60	0.54	-0.53	4.52
7,753.00	0.25	356.71	7,654.14	-699.75	345.62	779.82	0.62	-0.53	42.82
7,848.00	0.94	346.96	7,749.14	-698.78	345.44	778.88	0.73	0.73	-10.26
7,942.00	0.81	14.84	7,843.13	-697.39	345.43	777.65	0.47	-0.14	29.66
8,037.00	0.81	55.71	7,938.12	-696.36	346.16	777.10	0.60	0.00	43.02
8,132.00	1.06	75.71	8,033.11	-695.76	347.57	777.25	0.43	0.26	21.05
8,226.00	1.31	61.71	8,127.09	-695.04	349.36	777.47	0.41	0.27	-14.89
8,321.00	0.31	78.59	8,222.08	-694.47	350.56	777.55	1.07	-1.05	17.77
8,415.00	0.06	184.96	8,316.08	-694.47	350.81	777.67	0.35	-0.27	113.16
8,509.00	0.38	187.96	8,410.07	- 694.83	350.76	777.96	0.34	0.34	3.19
8,604.00	0.50	174.59	8,505.07	-695.56	350.76	778.59	0.17	0.13	-14.07
8,982.00	0.94	125.46	8,883.04	-699.00	353.44	782.90	0.19	0.12	-13.00
9,170.00	1.69	121.21	9,070.99	-701.33	357.06	786.68	0.40	0.40	-2.26
9,454.00	2.00	109.21	9,354.85	-705.13	365.33	793.97	0.17	0.11	-4.23
9,737.00	2.31	126.96	9,637.65	-710.18	374.55	802.82	0.26	0.11	6.27
9,926.00	2.44	130.84	9,826.49	-715.10	380.63	810.06	0.11	0.07	2.05

Survey Report

Company: Project:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_MORGAN STATE 921-360 PAD

Site: Well: Wellbore: Design:

MORGAN STATE 921-36O4CS MORGAN STATE 921-3604CS MORGAN STATE 921-36O4CS

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Well MORGAN STATE 921-3604CS 26' RKB + 5011' GL @ 5037.00ft (H&P 298) 26' RKB + 5011' GL @ 5037.00ft (H&P 298)

Survey Calculation Method: Minimum Curvature edmp Database:

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
10,115.00	2.38	134.71	10,015.32	-720.49	386.47	817.58	0.09	-0.03	2.05
10,399.00	2.44	133.34	10,299.07	- 728.79	395.05	828.98	0.03	0.02	-0.48
10,485.00	2.38	133.46	10,384.99	-731.28	397.68	832.42	0.07	-0.07	0.14
LAST MWD	SURVEY								
10,545.00	2.38	133.46	10,444.94	-732.99	399.49	834.79	0.00	0.00	0.00

	2,625.00	2,342.37	-310.17	230.00	LAST SDI SURVET
	2 625 00	2,542.57	-510.17	258.06	LAST SDI SURVEY
	""	***	(我)	(ft)	Comment
	(ft)	(ft)			Comment
	Depth	Depth	+N/-S	+E/-W	
	Veasured	Vertical	Local Coordi	nates	
		interior de la companya de la compa	เลยเลราเป็นเป็นเรื่องใหม่เหมือนใหม่จะไรปรับส		
Design Annotation	วทร				마음과의 물이 하는 목가 하일 사회가는 명된 이 개호하게 중요하다 그 사이에 되어 있는 그를 되다.

Checked By:	Approved By:	Date:	
	· · · · · · · · · · · · · · · · · · ·		

					Opera	ition S	Summa	ry Report	
Well: MORGAN	STATE 9	21-36O4CS	YELLOW	ATT Frank Stronger C. Hamil	PRINT TO THE APPROX	W. TELEKO	gara dan es gen	Spud Date: 6/2	4/2012
Project: UTAH-UINTAH Site: MOI					RGAN ST	GAN STATE 921-360 PAD Rig Name No: ROCKY MOUNTAIN 3/3			Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION Start Dat					e: 11/20/2	End Date: 12/14/2012			End Date: 12/14/2012
Active Datum: RI Level)	⟨B @5,0	37.00usft (a	bove Mean Se	ea	UWI: SI	N/SE/0/9	/S/21/E/36	6/0/0/26/PM/S/11	98/E/0/2163/0/0
Date	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00	- 15:00	0.00	DRLOUT	50				WELL TURNED TO SALES@ 1240 HRON 12/14/2012, MCFD 2400, 1560 BWPD, FCP 2600#, FTP 2400#, 20/64" CK.
12/20/2012	7:00	<u>.</u>			50				WELL IP'D ON 12/20/12 - 2423 MCFD, 0 BWPD, 0 BOPD, CP 2805#, FTP 2#, LP 119#, 24 HRS, CK 20/64